

4235 W. Main St. Skokie, Illinois 60076 (312) 982-0440

**THIS MANUAL IS FOR
VIDEO VENDOR MACHINES
EQUIPPED WITH
5.00.00 SOFTWARE OR HIGHER**

THIS MANUAL HAS BEEN VALIDATED AND REVIEWED FOR ACCURACY. THE INSTRUCTIONS AND DESCRIPTIONS IT CONTAINS WERE ACCURATE FOR THE MODEL 121268 VIDEO VENDOR MACHINE AT THE TIME OF THIS MANUAL'S PRODUCTION. HOWEVER, SUCCEEDING MACHINES AND MANUAL'S ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION. THEREFORE, VIDEO VENDOR ASSUMES NO LIABILITY FOR DAMAGES INCURRED DIRECTLY OR INDIRECTLY FROM ERRORS, OMISSIONS OR DISCREPANCIES BETWEEN THE MACHINE AND THE MANUAL.

Video Vendor, Inc. Machines are protected by
United States Patent numbers 4,598,810 and
4,789,054 as well as Canadian Patent number
1,226,856.

Basic Patents are Insured with MLI Insurance
Services, Inc. by Connecticut Indemnity, Inc.

All Video Vendor, Inc. Documents are protected by
Copyright as of the Date of Origination by
Video Vendor, Inc.

"Video Vendor" ... as displayed in promotional printed
material is a Service Mark of Video Vendor, Inc.

VIDEO VENDOR

INSTALLATION CHECK LIST

**** REFER TO OWNER'S MANUAL ****
FOR INFORMATION ON
USING SERVICE FEATURES

1. RECEIVE MACHINE AND UNCRATE IF NECESSARY.
2. INSPECT THE MACHINE FOR DAMAGE.
3. PLACE THE MACHINE IN THE VENDING LOCATION.
4. READ AND FOLLOW THE INSTRUCTIONS TAPED OVER THE MONITOR. REMOVE THE KEY TAPED TO THE MONITOR UNDER THE INSTRUCTION SHEET, AND USE IT TO OPEN THE CASH BOX DOOR (LOWER OF THE TWO METAL DOORS IN FRONT).
5. REMOVE THE KEYS FOR THE OTHER DOORS FROM THE CASH BOX. WE SUGGEST THAT YOU CHANGE ALL LOCKS AND KEYS FOR BEST SECURITY. WE CANNOT GUARANTEE NON-DUPLICATION.
6. WITH THE PROPER KEY, UNLOCK AND OPEN THE LARGE, CLEAR PLASTIC (LEXAN) DOORS, IN FRONT OF THE MOVIE SLOTS.
7. LOCATE THE TWO WOODEN BLOCKS IN THE INSIDE BOTTOM LEFT AND RIGHT OF THE CABINET. REMOVE THE SCREWS FROM THE STRAPS ON THE BLOCKS. OPEN THE BACK SERVICE AND LEFT SIDE SERVICE DOORS. THE CHAINS ARE TIED ON BOTH SIDES. CUT THE TIES. ON ONE CHAIN YOU WILL FIND A BAG CONTAINING THE THREE AMP FUSE FOR THE MOTOR CONTROL BOARD. INSTALL THE FUSE AS DIRECTED IN THE INSTRUCTIONS SHEET.
8. OPEN THE REAR SERVICE DOOR AND REMOVE THE 120V AC POWER CORD. VISUALLY CHECK TO SEE IF THERE IS ANY DAMAGE OR LOOSE WIRES. IF EVERYTHING APPEARS TO BE IN ORDER, YOU WILL BE READY TO APPLY THE POWER; FIRST, OPEN THE SERVICE DOOR WHICH IS THE UPPER OF TWO METAL DOORS IN FRONT (DOING THIS WILL PUT THE MACHINE INTO ITS SERVICE MODE AND PREVENT THE RETRIEVER FROM MOVING WHEN POWER COMES ON).
9. INSERT THE POWER PLUG INTO A 120V AC SINGLE PHASE 60 HERTZ 15 AMP LINE. AS LONG AS THE SERVICE DOOR IS OPEN, THE ONLY THING THAT WILL HAPPEN WHEN THE POWER COMES ON IS THAT THE LIGHTS AND THE MONITOR WILL COME ON AND THE PRINTER WILL CYCLE.
10. TURN ON THE POWER BY USING THE POWER (TOGGLE) SWITCH LOCATED ON TOP OF THE VENDOR TOWARD THE RIGHT SIDE, FRONT, AS YOU FACE THE FRONT OF THE MACHINE.
11. AFTER A VERY SHORT DELAY, THE SCREEN SHOULD DISPLAY THE VIDEO VENDOR LOGO AND THE SERVICE MENU.
12. CLOSE AND LOCK THE LEXAN DOORS. ENTER SERVICE FEATURE #19, DIAGNOSTIC MODE. PRESS KEY 8 AND MOVE THE TRANSPORT UP AND THEN, PRESS KEY 4 TO MOVE IT LEFT AND KEY 6; RIGHT. THIS ENSURES THAT THE RETRIEVER IS FREE TO MOVE.

13. SINCE THE TRANSPORT WILL NOT MOVE WHEN THE LEXAN DOORS ARE UNLOCKED, WHENEVER YOU NEED TO OPERATE THE VENDOR WITH THE LARGE LEXAN DOORS UNLOCKED, WE RECOMMEND THAT YOU USE A SHORT ALLIGATOR CLIP JUMPER (RADIO SHACK PART #278-1156), TO SHORT THE WIRES ON THE DOOR KEYLOCK TOGETHER. THIS WILL ENABLE THE TRANSPORT TO OPERATE WITH THE DOORS OPEN. IF YOU DO NOT HAVE A JUMPER, SWITCH THE MIDDLE WIRE ON THE LEXAN DOOR SWITCH TO THE BOTTOM CONNECTOR OF THAT SWITCH. (REMEMBER TO REMOVE JUMPER OR REPLACE THE WIRE WHEN FINISHED, OR THE MACHINE WILL NOT OPERATE WITH LEXAN DOORS CLOSED AND LOCKED.)

14. IN THE DIAGNOSTICS MODE, SERVICE FEATURE #19, TEST ALL OF THE FOLLOWING ITEMS USING THE KEYPAD KEYS:

- A. Y UP, KEY 8
- B. Y DOWN, KEY 2
- C. X LEFT, KEY 4
- D. X RIGHT, KEY 6

USING KEYS 2, 4, 6, AND 8, ALIGN RETRIEVER ASSEMBLY IN FRONT OF MOVIE SLOT NUMBER 150 AND TEST THE FOLLOWING KEYS:

- E. Z IN, KEY 7
- F. GRABBER, KEY 3
- G. Z OUT, KEY 9

- H. LIFT THE ACCESS DOOR SLIGHTLY FROM THE FRONT AND CHECK THE RESPONSE...ACCESS DOOR, YES/NO
- I. CHECK THE BODY SENSOR BY STANDING IN FRONT OF THE MACHINE AND MOVING TOWARD IT IN THE MANNER OF A CUSTOMER APPROACHING IT FOR VENDING....BODY SENSOR, YES/NO
- J. DOLLAR BILL ACCEPTOR, PRESS THE MONEY KEY (ARROW)...LISTEN FOR A CLICK AND PUT A SINGLE, THEN A FIVE DOLLAR BILL IN THE MONEY ACCEPTER. WATCH THE BILL PULSE ON THE SCREEN FLASH ONCE FOR EVERY \$. DO THE SAME WITH THE COIN PULSE THIS TIME USING QUARTERS.
- K. TEST THE BEEPER, KEY 0
- L. TEST THE PRINTER, KEY 5

M. WITH THE TRANSPORT STILL AT LOCATION 150, OPEN THE LARGE LEXAN DOORS. MANUALLY, PUT A MOVIE CASSETTE IN THE RETRIEVER HOPPER AND CHECK THE FOLLOWING SWITCHES:

- TAPE TOP, YES/NO
- TAPE WRONG, YES/NO
- TAPE FRONT, YES/NO
- TAPE BACK, YES/NO

- N. CHECK THE CREDIT CARD READER BY RUNNING A CREDIT CARD THROUGH THE READER. OBSERVE THE DISPLAY ON THE MONITOR NEXT TO THE WORDS "CARD DATA". THE CREDIT CARD NUMBER AND EXPIRATION DATE SHOULD BE DISPLAYED.
- O. IF YOU CHOSE TO USE THE JUMPER IN STEP 13 ABOVE REMOVE IT NOW, OR SWITCH THE WIRES BACK. THEN, CLOSE AND LOCK THE LEXAN DOORS.

15. ENTER SERVICE FEATURE #16, EXAMINE CONTROL. THE RETRIEVER WILL POSITION ITSELF IN FRONT OF THE ACCESS DOOR AND ASK THAT A MOVIE CASSETTE BE PLACED IN THE HOPPER. PUT A CASSETTE IN THE HOPPER, MAKE SURE THE CASSETTE HAS THE SILVER CODE LABEL ON IT, AND THE VENDOR WILL READ IT, DISPLAYING THE CODE NUMBER AND A DIAGRAM OF THE LABEL ON THE MONITOR. TAKE THE CASSETTE OUT OF THE HOPPER AND COMPARE ITS LABEL TO THE DIAGRAM DISPLAYED ON THE MONITOR.

VIDEO VENDOR

SET UP INSTRUCTIONS

GETTING STARTED

NOTE: YOU SHOULD READ THE OWNERS' MANUAL PRIOR TO USING THESE INSTRUCTIONS FOR SET UP OF A VIDEO VENDOR

|| REFER TO OWNER'S MANUAL FOR DETAILED EXPLANATION ||
|| OF ALL SERVICE FEATURES AND "HELPFUL HINTS". ||

1. APPLY CODE LABELS TO MOVIE CASSETTES USING THE LABEL FIXTURE GUIDE. FOLLOW DIRECTIONS ON PAGE 51 OF THE OWNER'S MANUAL.

2. IF YOU ARE USING TITLE IDENTIFIERS WHICH ARE EMPTY BOXES INSERTED INTO SLOTS TO SEPARATE DIFFERENT SECTIONS OF MOVIES (ie. COMEDY, DRAMA, SPECIALS, etc.) PUT THEM IN NOW. THESE SLOTS SHOULD BE PUT "ON HOLD" FEATURE 7 (PAGE 17) SO THEY CANNOT BE RENTED.

3. WRITE SLOT LOCATION NUMBERS ON EACH MOVIE CASSETTE. WE RECOMMEND THAT THE SLOT LOCATION NUMBERS BE WRITTEN ON TWO STICKERS. ONE PLACED ON THE SPINE BELOW THE MOVIE TITLE, AND THE OTHER ON THE TAPE WINDOW. LOAD THE MOVIES INTO THE SLOTS. THE EDGE OF THE CASSETTE SHOULD OVERHANG THE EDGE OF THE SHELF BY ABOUT 1/16 INCH. THE SILVER CODE LABEL MUST HAVE THE ARROWED END POINTING UPWARD AND THE MOVIE TITLE MUST BE READABLE THROUGH THE LEXAN DOORS.

4. OPEN THE UPPER DOOR TO ENTER THE "SERVICE MODE".

NOTE: YOUR ACCESS CODE IS 3125551212.

5. CHECK, AND IF NECESSARY, SET THE CURRENT DATE AND TIME USING SERVICE FEATURE #14 (PAGE 30).

6. SET THE AREA CODE AND STORE CODE USING FEATURE #12 (PAGE 26) OF THE SERVICE MENU. THESE NUMBERS MAY BE ANY SEQUENCE YOU WISH.

CAUTION: DO NOT USE YOUR PHONE NUMBER AREA CODE FOR THE MACHINE AREA CODE AS THIS MAY CAUSE UNWANTED DUPLICATIONS BETWEEN YOU AND OTHER OPERATORS IN YOUR AREA. DO NOT USE ALL ZEROS EX. 000123.

7. USING SERVICE FEATURE #4 (PAGE 14) CREATE SOME RANDOM MEMBER NUMBERS TO BE DISTRIBUTED TO CUSTOMERS FOR THEIR ACCESS TO RENT TAPES, AND ANY SPECIFIC ACCOUNT NUMBERS YOU DESIRE FOR USE BY YOUR EMPLOYEES OR TO BE ISSUED TO VIP'S.

8. SET PRICES FOR SLOT NUMBERS USING MAIN MENU FEATURE #6 (PAGE 16) AND BY USING THE SUB-NUMBERS SHOWN IN THIS FEATURE. WE SUGGEST THAT YOU FIRST, SET "RENTAL PRICES". THEN, SET "EXTRA-DAY CHARGES". THEN, IF YOU HAVE ANY SALE ITEMS IN THE MACHINE, SET THE "SALE PRICES". IF YOU'RE GOING TO HAVE SPECIAL PRICES FOR DIFFERENT DAYS OF THE WEEK, SET THESE IN "DAILY DISCOUNTS". FINALLY, SET ANY DAYS FOR WHICH THE LOCATION WILL BE CLOSED IN "DAYS CLOSED" AND EXTRA-DAY CHARGES ARE NOT CHARGED ON THOSE DAYS.

NOTE: WHEN ENTERING PRICES YOU MUST ENTER THE CENTS (NO DECIMAL POINT) ie. : \$2.00 = 200, \$2.50 = 250, ETC.
ALL PRICES MUST BE IN .25 INCREMENTS.

NOTE: IN STEP 13, YOU MUST SET THE COIN VALUE FOR 25 CENTS UNLESS YOU INTEND TO USE TOKENS ONLY WITH A DIFFERENT MONETARY VALUE.

9. IF YOU HAVE SECTION/TITLE IDENTIFIERS OR SLOTS THAT ARE BEING LEFT EMPTY DELIBERATELY, YOU MAY USE SERVICE FEATURE #7 (PAGE 17) HOLD TAPE TO LOCK OUT THESE SLOTS. BE SURE THAT WHEN YOU AGAIN PUT MOVIES IN THESE SLOTS FOR RENTAL OR SALE THAT YOU FIRST UNLOCK THESE SLOTS BY TAKING THEM OFF HOLD. IF A CUSTOMER ENTERS THE NUMBER OF A SLOT ON HOLD, HE IS TOLD **"THIS TAPE IS BEING HELD FOR REPLACEMENT PLEASE MAKE ANOTHER SELECTION"**.

IF THE SLOT CONTAINING A SECTION TITLE IS LEFT (UNLOCKED) NOT ON HOLD, A CUSTOMER MAY TRY TO RETRIEVE THAT MOVIE OR TITLE IDENTIFIER. MAKE SURE IT DOES NOT HAVE A LABEL ON IT SO IT CANNOT BE RENTED. YOU CAN GET A PRINTOUT OF ALL SLOTS ON HOLD BY USING FEATURE #13, SUB-1 (PAGE 24).

10. IF YOU WILL BE RENTING X-RATED MOVIES AND WISH TO GIVE CUSTOMER APPROVAL FOR X-RATED RENTAL, FIRST USE SERVICE FEATURE #9 (PAGE 18), SUB-1 TO DESIGNATE THE X-RATED MOVIE LOCATIONS. THEN, USE SUB-2 TO DESIGNATE WHICH CUSTOMERS YOU ARE ALLOWING TO RENT X-RATED MOVIES.

11. ENTER SYSTEMS OPTIONS SERVICE FEATURE #11 (PAGE 21) FOR THE FOLLOWING FEATURES DECIDE WHETHER YOU WILL ALLOW USE OF CREDIT CARDS FOR MOVIE RENTALS. IF SO, WILL YOU ALLOW X-RATED RENTALS WITH CREDIT CARDS? SET THE MINIMUM AMOUNT OF MONEY YOU WILL ALLOW A CREDIT CARD CUSTOMER TO CHARGE.

IF YOU CHOOSE TO HAVE MEMBERSHIP FEES, SET THE FEE TO BE PAID BY THE CUSTOMER AND, NEXT, THE AMOUNT OF CREDIT YOU WISH TO GIVE FOR THAT FEE.

NOTE #1: ACCOUNT PROMPT ALLOWS YOU TO REMOVE THE CUSTOMER SCREEN MESSAGE WHICH TELLS THE CUSTOMER TO ENTER THEIR NUMBER. YOU CAN REMOVE THE MESSAGE ON THE SCREEN IF YOU ARE USING ALL MAGNETIC CARDS.

FOR ADDITIONAL PROTECTION, YOU MAY ENGAGE THE PIN (PERSONAL IDENTIFICATION NUMBERS) NUMBER FOR USE WITH CREDIT CARDS AND USE EITHER THE STANDARD SEED# OR ANY ONE OF YOUR CHOOSING. YOU MUST HAVE A "PIN NUMBER COMPUTER" TO USE THIS FEATURE. IT IS LISTED ON THE ACCESSORY SHEET AS #11 AND IS OUR PART #X-122.

A PIN NUMBER SYSTEM MAY ALSO BE USED WITH REGULAR 14-DIGIT MEMBERS BY ENCODING ONLY THE FIRST 10 DIGITS ON THE CARD. WHEN THE CARD READER SEES 10 DIGITS, IT ASKS THE CUSTOMER TO ENTER THE PIN NUMBER (WHICH YOU WOULD TELL THEM). THIS IS THE LAST 4 DIGITS OF THE 14-DIGIT MEMBERSHIP CARD SYSTEM.

DECIDE IF YOU WILL BE USING THE ACCOUNT CARDS (9 or 11 digits). IF YOU ARE, WHAT PERCENT DISCOUNT YOU WILL GIVE YOUR 11-DIGIT ACCOUNT CARD MEMBERS.

ANOTHER OPTION IS THE TWO TAPES FOR A SINGLE BARGAIN PRICE. IF YOU ENGAGE THE TWO-FOR SYSTEM. PRICES SET HERE OVERRIDE ALL PREVIOUSLY SET RENTAL PRICES.

12. THE NEXT FEATURE IS THE HOLD MODE. AT THIS POINT YOU WILL WANT TO INSURE THAT THE HOLD MODE IS OFF FOR ALLOWING CUSTOMER RENTAL ACCESS.

13. IN FEATURE 11 SET THE "COIN VALUE". ENTER THE VALUE OF 25 CENTS FOR QUARTERS. IF YOU INTEND TO USE A TOKEN ACCEPTOR ONLY, ENTER THE VALUE WHICH YOU WANT TO ASSIGN TO A TOKEN. SPECIAL TOKEN ACCEPTORS ARE AVAILABLE. CALL VIDEO VENDOR FOR CURRENT PRICE.

NOTE #2: PRINTER OPERATION STATUS. YOU HAVE SEVERAL CHOICES ON OPERATING THE PRINTER - ON, OFF, ON REQUEST. DECIDE HOW YOU INTEND TO USE IT.

OVERRIDE TAPE SLOTS CAN BE USED TO SET ASIDE UP TO 15 SLOTS FOR THE MACHINE TO PUT AWAY TAPES WHICH IT CAN'T HANDLE FOR VARIOUS REASONS.

14. CHECK THE AMOUNT OF TIME, IF ANY, TO BE ALLOWED FOR EARLY RETURN CREDITS USING SERVICE FEATURE #8 (PAGE 17) "EARLY TIMER". YOUR SIGN SAYS 15 MINUTES SO WE ADVISE CHANGING IT IF YOU CHANGE THE TIME LIMIT. FEATURE #8 ALSO HAS "HOURLY DISCOUNTS" WHICH ALLOW YOU TO RENT BY THE HOUR AND CREDIT BACK PART OF THE RENTAL IF THE HOURLY RENTAL AMOUNT IS LESS THAN THE REGULAR AMOUNT.

15. TO CHANGE THE MESSAGE DISPLAYED AT THE BOTTOM OF THE MONITOR OR PRINT MESSAGES ON THE RECEIPT TAPE, USE FEATURE #17, MESSAGE EDITOR.

16. CHECK THE BODY SENSOR AND MAKE SURE IT IS ADJUSTED PROPERLY. YOU WILL FIND THIS ADJUSTMENT ON SERVICE BULLETIN # 30.

17. YOU MUST SET THE LISTS TO BE PRINTED IN BOOKKEEPING. GO TO FEATURE 21 (PAGE 40) COMMUNICATIONS AND SET THE LISTS THAT ARE TO BE PRINTED OR SENT TO THE RS232 PORT. IF NO LISTS ARE CHOSEN BOOKKEEPING WILL NOT PRINT DURING ITS OPERATION.

NOTE #3: THE TIME SETTING IN COMMUNICATION SHOULD BE SET TO HR 24, WHICH TURNS IT OFF, IF YOU ARE NOT USING THE RS-232 COMMUNICATIONS PORT. OTHERWISE THE VENDOR WILL GO OUT OF SERVICE TEMPORARILY AT WHATEVER HOUR IS SET FOR THIS OPTION.

18. TEST THE MACHINE BY PRETENDING TO BE A VARIETY OF CUSTOMERS AND RENT AND RETURN MOVIES BY MEMBER NUMBER, CREDIT CARD, ETC. RENT AND RETURN ABOUT THREE MOVIES FROM EACH SHELF FROM THE LEFT SIDE, CENTER, AND RIGHT SIDE.

19. PRACTICE CHANGING THE PRINTER PAPER, DETAILS ARE FOUND BEGINNING ON THE BOTTOM OF PAGE 6 OF THE OWNER'S MANUAL.

20. BEFORE LOCKING AND LEAVING THE MACHINE, WE RECOMMEND THAT YOU:

- 1) DISPLAY SIGNS FOR RENTAL PRICES AND WHOM TO CALL FOR SERVICE.
- 2) DISPLAY MOVIE LISTS AND BOXES.
- 3) PROVIDE MOVIE RETURN RECEIPTS AND A SAFE, OR OTHER MEANS TO RETURN MOVIES THAT ARE DEFECTIVE OR MOVIES THAT COULD NOT BE RETURNED BECAUSE THE MACHINE WAS NOT OPERATING OR THE CUSTOMER FORGOT THEIR CARD.

NOTE #4: AS YOU GET MORE PROFICIENT IN THE RETAIL OPERATION OF THE VIDEO VENDOR YOU WILL FIND MANY MORE USEFUL COMBINATIONS OF THE FEATURES TO RUN YOUR BUSINESS. THIS SECTION IS HERE ONLY TO GET YOU STARTED.

TABLE OF CONTENTS

DESCRIPTION	PAGE
INSTALLATION CHECK LIST	(i)
SET UP INSTRUCTIONS	(iii)
TABLE OF CONTENTS	1
INTRODUCTION	3
HOW TO OPERATE THE VIDEO VENDOR	4
A TYPICAL OWNER/OPERATOR OPERATION OF THE VIDEO VENDOR	6
OWNER/OPERATOR SERVICE FEATURES	8
1. BOOKKEEPING	9
2. ADD CREDITS	14
3. ADD DEBITS	14
4. ADD CUSTOMERS	14
5. DELETE CUSTOMERS	15
6. TAPE PRICES	16
7. HOLD TAPE	17
8. EARLY RETURN OPTIONS	17
9. X-RATING	18
10. CUSTOMER/TAPE ACCESS	19
11. SYSTEM OPTIONS	21
12. SET AREA & STORE CODE	26
13. LISTING	26
14. SET DATE & TIME	30
15. ADJUSTMENT COUNTS	31
16. EXAMINE CONTROL #S	35
17. MESSAGE EDITOR	35
18. RETURN TAPE	37
19. DIAGNOSTICS	38
20. BUBBLE UTILITIES	39
21. COMMUNICATIONS	40
MACHINE DIAGRAM	41
BLOCK DIAGRAM	42
BLOCK DIAGRAM INFORMATION	43
MAINTENANCE	43
THEORY OF OPERATION	44
110 CIRCUIT	47
HELPFUL INFORMATION	48
APPLYING LABELS DIAGRAM	51
VIDEO VENDOR ACCESSORIES LIST	53
GLOSSARY OF TERMS	57

DESCRIPTION

PAGE

TECHNICAL SERVICE BULLETINS

SECTION "A"

PARTS MANUAL

SECTION "B"

----- POCKET INCLUSIONS -----

MEMBER CARD INFORMATION LETTER

FRONT

INTRODUCTION

Welcome to the growing family of Video Vendor Machine Operators.

The Video Vendor machine was designed to allow ease of customer operation while automating many video movie rental and purchase transactions, with features to provide an accurate audit trail for accounting purposes.

The Video Vendor can display up to 320 different movie cassettes in any variety of titles, both in VHS and Beta formats.

Customers may use a Visa, MasterCard, Video Vendor Member Card or be issued individual member account numbers in order to operate the Video Vendor.

The Video Vendor machine accepts either dollar bills, five dollar bills, credits, quarters or tokens in place of quarters in payment for rentals, sales, and extra-day fees. The machine can also be set to allow the customer to "charge it", if desired.

The rental or sale price of the movies can be varied in 25 cent increments. The built-in electronic system keeps accurate records of all transactions including: extra-day fees, total sales and total rentals, all outstanding balances, in addition to many other functions for total bookkeeping and tax purposes.

The machine also has sophisticated built-in maintenance dynamic diagnostic features designed for ease of trouble-shooting and repair. The majority of its electronic components are located in a drawer in front of the machine. This drawer slides out for easy access and replacement of components.

VIDEO VENDOR, INC.

HOW TO OPERATE THE VIDEO VENDOR

First, read this manual. Then, try the various functions on the machine. The best way to learn is to try it. The Keypad and the Video Display Monitor are used to communicate between customer and machine. For operation of the Vendor, follow these procedures:

1. To identify yourself to the Vendor: use the Keypad to enter a member account number, or slide a Visa/MasterCard or Video Vendor access card through the credit card reader. After the Vendor has acknowledged your valid account, it will show the options available to you on the video monitor.
2. Select the desired mode of operation by keying the proper number as displayed on the video monitor. The monitor will offer only those options which are valid. If a customer already has two movies rented, then only the return options will be offered. The machine only allows up to two movies to be rented for each access card or member account number. If the customer owes late fees, then only the opportunity to pay late fees will be offered.
3. To rent or return: enter the quantity of movies to be rented or returned, and press the -ENTER- key located on the keypad.
4. On a rental or purchase, enter the movie slot location number, which is located on the shelf just below the cassette, inside the Vendor display case. If the selection is already rented or is "on hold", then the screen will immediately display this information and request that the customer make another selection.
5. After making a selection, deposit the total amount of money due which is shown on the Vendor display Monitor. To charge the transaction the machine operator may set a minimum amount above which the customer may request "charge it". If the transaction is greater than the minimum amount set, then the monitor will offer the option to the customer, press #1 to "charge it", or press #2 to "pay cash".
6. Next, the Vendor robotic Retriever will find the movie selected, and deliver it to the Tape Access Door. When the green light is lit, lift the Tape Access Door and remove the movie from the machine. *YOU HAVE 20 SECONDS TO DO THIS OR THE MACHINE WILL PUT THE TAPE BACK AND CREDIT YOUR ACCOUNT.* Tear off the receipt tape from the Printer or view the receipt on screen, this completes the rental or sales transaction.
7. To return a movie: enter the SAME account number or use the same access card as was used to rent that movie. Press #1 (if two movies were rented then Press #2) and wait for the Vendor Transport to move up in front of the Tape Access Door and the green light to go on. Insert one movie and after the machine puts it away the transport will come back for the second movie.

8. If late fees are due, the video monitor will display the option to "press #1 TO PAY YOUR LATE FEES NOW". If, after 10 seconds, #1 is not pressed and no money is paid, the return receipt is printed on the screen, or if chosen, the printer will turn on and print the late charges due. They can then be paid anytime prior to renting additional movies. (See NOTE #5 below.)

9. After completion of all transactions, the customer views a receipt on the screen and if the printer is turned on he will receive a printed receipt showing the time, date, the areawide number and store location number. These numbers are chosen and set by the machine operator, and appear on the receipt combined and scrambled as one six-digit number: the Store Code. EXAMPLE: Using the ex. areawide number: 643 and the ex. store location number: 222, the Store Code is produced by alternating their digits. It would be printed on the receipt as (6 2 4 2 3 2).

There is also an eight-digit receipt number in the upper right corner of the receipt, which is made up of two four-digit numbers. The first 4 digits represent the customer identification number and the last 4 digits are the actual sequential receipt numbers.

Messages may also be included on the receipts which are set up by the operator in service feature #17 Message Editor. Up to two lines of title messages and up to three lines of trailing messages can be added to the receipt.

10. If the customer changes his mind about the rental of a movie, it may be returned within a specified period of time, (set by the operator - usually 15 minutes) and his account will be credited in full. If the "Two-for" option is on, the first movie returned yields a credit of the two-for price minus the single movie rental price and the second movie yields a credit of the single movie price.

NOTES:

1. Tapes in SALE slots are NOT RETURNABLE.
2. Extra-day charges are kept track of by the Video Vendor machine and customers must pay those charges at any time prior to renting additional movies.
3. Should the Vendor fail to accept a returned cassette after two tries, the customer will be required to return the tape to the service counter and ask the clerk for a receipt. If the customer has left and the override feature is turned on the machine will put the tape in the designated override slot.
4. If, during a rental, a customer fails to open the Access Door within 20 seconds, the rental cassette will be returned to its slot and the customer's account will be credited. In the case of a cassette sale, the cassette will stay in the access door until someone removes it. NO CREDITS will be given on cassette sales.
5. We suggest that if a customer fails to return a cassette or fails to pay late fees (for whatever reason) after two weeks, his credit card account or his address should be invoiced for the replacement cost of that film or films and his account debited or deleted from the system.

A TYPICAL OWNER OPERATION OF THE VIDEO VENDOR

The owner/operator of the Video Vendor should service the Vendor location at least once a week. When he arrives at the machine site he should first pick up the movies which were not returned to the machine for the following reasons: people forgot their account numbers, forgot their access cards, the movie was defective, or the machine just did not take back the movie. He should pick up these tapes and review the reasons for the cassette returns as indicated on the return receipts. Perhaps labels are defective (which can be determined using Service Features #10 and #16) or perhaps the movie is defective. These faults require the attention of the operator and should be corrected before those movies are returned to the Vendor for rental. He should also question the store operator to find out if anything unusual had happened at the Vendor during the past week. If the store operator keeps on hand applications, etc., they should be replenished as necessary.

Next, he should go to the machine and open the large Lexan Door. The tapes picked up should be returned using service feature 18, and the appropriate customer accounts credited, using service feature #2 Credit Customer. He should check the slots set aside under the override feature and put those tapes away if no problem can be found with them.

Next, enter the Listings mode service feature #13. Obtain printouts of all items which you desire. We recommend "Service Totals", "Past Due List", "transport error list", "Debit Register", "Hold List" and "Invalid Tape List". Once a month, print out a complete Bookkeeping listing, menu item #1, and Zero Out the Bookkeeping totals. This takes about 10 minutes to print.

While the listing is being printed out the Money Vault can be emptied. The easiest way we know of to empty the money is to remove the drawer, put a plastic "Hefty" bag over it and turn the drawer upside down. We suggest that you do not put the plastic bag into the drawer as a liner because we have found that this takes up space in the drawer and restricts the amount of money the drawer can hold. Of course, you can just "dig in" and take the money out. Always double check that no money is statically stuck to the sides of the drawer.

The receipt tape should be changed at this time if it looks like there will be insufficient tape for another week. Experience will tell you how long a roll of tape will last.

To put in a new roll of receipt tape, you must remove the front cover plate which exposes the top of the Printer. To remove the front cover plate, push the latches located (inside the Vendor) on the bottom right and left of the cover plate. Access to the latches is gained by reaching in through the service door. Some machines have wing nuts instead of latches. In that case, remove the wing nuts to lift the plate.

Once the Front Cover Plate is removed, lift the flat metal weight which is resting on the paper tape roll. The receipt tape paper roll and its "core pin" can now be removed. Put the metal core pin through the new roll of paper and feed the paper through the printer. (It may help to fold the leading edge of the paper to a point.) There is a metal lever located on the right side of the printer head which, when depressed, automatically activates the feed motor which feeds the paper through the printer. Pull it back up to stop the feeding motor. Drop the roll into the printer slot, and flip the weight back down against the tape roll. Manually, feed the paper through the slot in the Cover Plate. Reinstall the cover plate and push the latches closed to lock it in place.

A Large Paper Roll can be installed with special mounting hardware so that your receipt paper can last much longer. This is an available option and comes with complete installation instructions. Part # X-200 for Kit and Part # 12A-564-1 for Large Paper Roll.

The printer ribbon helps to lubricate the printer head. The ribbon will have to be replaced periodically. Part # X-110.

CAUTION: WHEN REPLACING THE FRONT COVER PLATE, BE SURE TO POSITION IT CAREFULLY SO THAT IT IS NOT INADVERTENTLY PRESSING AGAINST ANY OF THE KEYS ON THE KEYPAD. OTHERWISE, WHEN NUMBERS ARE ENTERED DURING RENTAL OR RETURN FUNCTIONS, EXTRA NUMBERS WILL APPEAR ON THE SCREEN CAUSING THE MACHINE TO FUNCTION INCORRECTLY.

After you have done the bookkeeping and the money is out of the machine, you can perform the movie tape maintenance. This involves replacing bad tapes, installing replacement labels, and adding new movies to the machine. Remember to CLOSE AND LOCK the doors when you are finished. *Before leaving the machine, always rent and return at least one movie as if you were a customer. This assures that the machine is working properly and prevents a costly call back.*

You should rotate at least 40 movies a month. Do this in order to give your customers different titles to choose from. Add newer titles frequently to keep your customers coming back.

OWNER/OPERATOR SERVICE FEATURES

CAUTION: DO NOT ASSUME! CAREFULLY READ DIRECTIONS ON SCREEN BEFORE ENTERING DATA. ENTRY ERRORS CAN BE DESTRUCTIVE!

To service the VIDEO VENDOR we have provided bookkeeping functions and maintenance aids which can be accessed through what is called the Service Mode. To enter the Service Mode all you have to do is open either the SERVICE DOOR OR THE ELECTRONICS DOOR with the appropriate key.

Once in the Service Mode you will see on the Display Monitor a list of service options. You can communicate with the Video Vendor by following the instructions on the display monitor and using the keypad located just below the display monitor.

Functions of the Keypad:

- a. Keys 0 - 9 are digit entries.
- b. -ENTER-Key completes the selection OR goes back to a previous service menu.
- c. <--Back Space erases the previous digit typed and the cursor on the screen moves back one space.
- d. ENTER = XXX the X's stand for the maximum number of digits the Vendor is expecting to be entered.

The first and main menu displayed on the monitor is the Service options menu which features the following operational functions:

U.S. PATENT #4,598,810
UL LISTED #83N3
FCC APPROVED
VIDEO VENDOR INC, 1986
CHICAGO IL, USA

APRIL 20, 1988
11:57 AM
WEDNESDAY

STAND CLOSE AND DON'T BACK AWAY!
OR LEAN SIDEWAYS UNTIL ROBOTIC!
TRANSPORT BEGINS TO MOVE.

SERVICE OPTIONS

1-BOOKKEEPING	8-EARLY RETURN OPTIONS	15-ADJUST COUNTS
2-ADD CREDITS	9-X RATING	16-EXAMINE CONTROL#S
3-ADD DEBITS	10-CUST/TAPE ACCESS	17-MESSAGE EDITOR
4-ADD CUSTOMERS	11-SYSTEM OPTIONS	18-RETURN TAPE
5-DELETE CUSTOMER	12-SET AREA & STORE CODE	19-DIAGNOSTICS
6-SET TAPE PRICES	13-LISTINGS	20-BUBBLE UTILITIES
7-HOLD TAPE	14-SET DATE & TIME	21-COMMUNICATIONS

ENTER SELECTION ____
BACKUP BUBBLE ERROR OR NOT AVAILABLE

FOLLOW INSTRUCTIONS ABOVE

"BACKUP BUBBLE ERROR OR NOT AVAILABLE"

The above message will appear on the screen only if: A Backup Bubble option is not installed in the machine. If the Backup Bubble is installed but has not been copied. If the Backup Bubble has had an error and no longer has the correct Backup information stored. Corrective action is only needed to copy Main to Backup or replace the Bubble in the case of permanent error.

To select one of these features, type the appropriate number on the keypad followed by pressing the -ENTER- key. All selections other than those used for maintenance are protected by an ACCESS CODE, which the Vendor will require you to enter before yielding access.

To have this access code changed, contact Video Vendor and we will send you new plug-in "proms" at an additional cost. THE STANDARD ACCESS CODE IS 312 555 1212.

To select the "Bookkeeping" feature for example, press the -1- key followed by the ENTER Key.

The screen will display the following message:
ENTER ACCESS CODE _

The Access Code is: 312 555 1212

You must enter this number each time you open the service door. This safe guard is there to prevent someone who accidentally opens the service door from entering the customers files.

1. BOOKKEEPING TOTALS:

INCOME FROM RENTALS = XXXX	SERVICE CREDITS = XXXX
INCOME FROM SALES = XXXX	TOTAL CUSTOMERS = XXX
INCOME FOR PERIOD = XXXX	LAST SERVICE DATE = XXXX
TOTAL RENTALS = XXX	
	GRAND TOTAL SALES = XXX
GRAND TOTAL RENTALS = XXX	

Press 1 for Listings
or
Press Any Key for Menu

FOLLOW INSTRUCTIONS ABOVE

Next press -1- which gives you the choice of printing or sending the data out the RS232 port.

PRESS -1- TO SEND TO RS-232
or
PRESS -ENTER- TO SEND TO PRINTER

Next press -enter- for a complete printout listing. To interrupt (stop) the printing before it is finished, turn the machine POWER off with the on/off AC power switch or press the reset button on the MPB board in the electronics drawer.

Note: In order to get a printout in Bookkeeping mode, you must first go into feature #21 communications and select the order and list which you want to be printed.

For Bookkeeping purposes
Pressing -1- generates any or all of the following listings which you select in feature #21 Communications.

COMMUNICATIONS MENU

- | | | |
|------------------|-------------------------|---------------------|
| 1.TAPE REG | 7.HOLD TAPE LIST | 13.CREDIT REG |
| 2.DEBIT REG | 8.PRICE LIST | 14.MESSAGE LIST |
| 3.CARD REG | 9.CUSTOMER LIST | |
| 4.STUDIO REG | 10.PAST DUE LIST | 15.TIME = 2400/OFF |
| 5.SERVICE TOTALS | 11.TRANSPORT ERROR LIST | 16.SPEED = 300 BAUD |
| 6.INVALID LIST | 12.ACTIVE CUSTOMER LIST | |

DOWNLOADING ORDER = 5,2,10 ETC.

THE FOLLOWING IS AN EXPLANATION OF THE REGISTERS PRINTED IN BOOKKEEPING:

THE TAPE REGISTER contains the status of all tapes in the machine. See example 1. Tape #1 was rented on 02/16/89. It rented once since last bookkeeping. It was rented by customer 4286 and it is still out.

EXAMPLE 1

 AREA = 101 Mar. 15, 1989 STORE = 105
 TAPE REGISTER

Tape #	Date	Rentals	Status
1	02/16/89	1	4286 OUT
2	02/26/89	3	0101 IN
3	03/14/89	0	0000 IN
.	.	.	.
320	02/15/89	0	0003 SALE

THE DEBIT REGISTER contains the customer financial debit status information. See example 2. The customer 2436 owes us \$4.00 and used the machine last on 02/18/89. Customer 1643 owes \$2.00 extra-day fee since 3/10/89. This printout does not list any customers with credits. You must print the Credit Register to get credits.

EXAMPLE 2

 AREA = 101 MAR. 15, 1989 STORE = 105
 CUSTOMER REGISTER

Acct. #	Credits	Xtra-days	Last date
2436		4.00	02/18/89
1643		2.00	03/10/89
TOTALS	0.00	6.00	

THE CREDIT CARD REGISTER . It shows the complete credit card number with expiration date and tells you the "charge it" amounts which will be zeroed out with the bookkeeping, if you choose that option. BE SURE TO WRITE UP THE APPROPRIATE CHARGE SLIPS FOR THE "CHARGE AT" AMOUNTS EACH TIME YOU RUN A BOOKKEEPING. Account numbers given to credit cards are temporary. See example 3. Account 0011 is a temporary account whose Mastercard number is 5432123976548 expiration date 11/89. The account was charged \$26.00 on 02/29/89.

EXAMPLE 3

```

-----
AREA = 101      MAR. 15, 1989      STORE = 105
      CREDIT CARD REGISTER
=====
Acct.      Credit Card No.      Exp.  Date      Charge
-----
0011      5432123976548      11/89  02/29      26.00
-----

```

THIS REGISTER ZERO'S ONLY WHEN YOU ZERO THE BOOKS.

THE STUDIO REGISTER contains the rental activity by code label # only for a special group of code labels which must be ordered particularity for this purpose. This feature was designed for movies which are provided on a pay-per-rental basis. See example 4. Tape Label Number 58206 was rented twice during this bookkeeping period. Rentals include all extra days and all rentals are registered only after the tape is returned.

EXAMPLE 4

```

-----
AREA = 101      Mar. 15, 1989      STORE = 105
      STUDIO REGISTER
=====
Control #      Times Rented
-----
58206          2
64002          3
-----

```

If you do not use these special labels, but numbers appear in the studio register, this would indicate a problem with either that label, the code label reader, or the label alignment.

THIS REGISTER ZERO'S ONLY WHEN YOU ZERO THE BOOKS.

THE SERVICE TOTALS show the status of the machine's financial performance since the last bookkeeping totals were zeroed. "Sales Period" includes all cash received for the total amount of rentals and sales including amounts which were "charged". Therefore, the cash in the cash box will not balance to the "Income Sales" amount until the "charged" amounts are subtracted from the total by the operator.

EXAMPLE 5

```
-----  
AREA = 101   Mar. 15, 1989   STORE = 105  
                SERVICE TOTALS  
=====
```

INCOME FROM RENTALS	=	1,011.00
INCOME FROM SALES	=	50.00
INCOME FOR PERIOD	=	1,061.00
TOTAL RENTALS	=	502
GRAND TOTAL RENTALS	=	5,007
SERVICE CREDITS	=	30.00
TOTAL CUSTOMERS	=	951
LAST SERVICE DATE	=	FEB. 23, 1989
GRAND TOTAL SALES	=	10,372.00

```
-----
```

THE INVALID TAPE REGISTER contains all the locations where a tape has a label that was not readable and could not be rented. The label should be replaced. It will disappear from the register upon zeroing out the books. See example 6. Tape number 007 has an invalid label that reads 41685.

EXAMPLE 6

```
-----  
AREA = 101   Mar. 15, 1989   STORE = 105  
                INV TAPE REGISTER  
=====
```

007=41685	025=65535	128=00000
-----------	-----------	-----------

```
-----
```

The tapes listed in the invalid register should be checked for possible damaged labels, by physical inspection or by using the EXAMINE CONTROL, feature # 16 on the main service menu. REPLACE DAMAGED LABELS. Sometimes the label will look OK and even appear correctly on Feature #16. However, upon comparing the number shown to the number recorded in Feature #10 (by entering the tape's slot number) you will see that the code label differs.

You may add or delete as many additional registers as you choose for your bookkeeping purposes.

Following the bookkeeping listing, you will be directed to do one of the following:

PRESS -1- TO ZERO OUT BOOKS
or
PRESS -ENTER- TO KEEP

Pressing -1- closes the bookkeeping for that period and zeroes all totals except for the Grand Total Sales and Grand Total Rentals which are never reset.

To verify that this is what you want to do, you are asked the following question:

YOU HAVE CHOSEN TO ZERO OUT THE BOOKS
PRESS -1- IF CORRECT

By pressing -1- this time, you execute the Zeroing Out function. This is a safety feature to insure that you can't accidentally zero the totals.

Instead of Pressing -1-, Pressing -ENTER-
KEEPS THE TOTALS INTACT.

To verify that this is the action you wish to take you are asked the following question:

YOU HAVE CHOSEN TO KEEP THE BOOKS
PRESS -ENTER- IF THIS IS CORRECT
(PRESS -1- TO ZERO OUT)

By pressing -ENTER- this time you return to the main service menu and DO NOT zero out the books.

Instead of getting a hard copy printout of the bookkeeping registers you have the option of transmitting the data to a cassette tape recorder, lap top computer or remote computer via a modem connected to the RS-232 port. For current information on this option call 312-982-0440.

2. ADD CREDITS

This feature allows the adding of credits to single accounts or all accounts. It may be used to give rental credit to a customer who rented a defective tape. It may also be used to give promotional credit to all accounts in the machine.

Example: All new members get \$2.00 off on their first rental

Enter Selection 2
1 = SINGLE 2 = ALL

Pressing 1 you are asked for the 4 digit account identifier number and then the amount to be credited.
Pressing 2 gets the Prompt.

AMOUNT XXXX

Key in the amount to be credited to all accounts.
Anytime you want to ignore an item or get back to the main menu press the enter key.

3. ADD DEBITS

1 = SINGLE 2 = ALL

This feature Debits the account selected for the amount entered. It can be used to charge a customer for a tape, prevent him from renting a second tape until he pays the debit charge or correcting a crediting error. It works similar to the Add Credits feature.

4. ADD CUSTOMERS

ENTER 8-DIGIT NUMBER OR # OF ACCOUNTS TO ADD ____

To add customers, you are asked to enter an eight-digit account number or to enter the quantity of accounts you wish to create. To create a specific account number you need only enter the LAST EIGHT DIGITS. The first six digits are always the same. They are the areawide and store code numbers which you will set under option #12 of the main menu and need not be entered at this time. For areawide code DO NOT use your telephone area code, zip-code or exchange (you don't want the same number someone else might have). This should be a truly random number chosen by you. A customer account number is made up of four sections as listed below:

EXAMPLE: Account # 643 222 4525 9762

- | | |
|---------------------------|----------------------------------|
| 1. 1st group of 3 numbers | = areawide code (e.g. 643) |
| 2. 2nd group of 3 numbers | = the store code (e.g. 222) |
| 3. 3rd group of 4 numbers | = the account number identifier |
| 4. 4th group of 4 numbers | = random variable numbers (9762) |

NOTE: Each account number identifier is assigned two numbers. For example, 4525 is read as 4525 or 4526 and appears in Feature #10 as 4525/6.

You can also add Visa, Mastercard or access cards to the customer list. See feature 10 customer & tape access, sub menu 3 (9-11-13 or 16 digit numbers).

NOTE: Customers who enter their numbers on the keypad can change the random variable numbers any time they enter their numbers in the machine. They do this by following the instructions on the monitor. Also this group of numbers is the pin # for 10 digit issued cards.

If you try to create a specific customer number that is a duplicate, you will not get a printout. It only prints one when the number entered is acceptable.

To create 10 new accounts, you press -1- and -0- and then the -ENTER- key. The Vendor will add 10 new accounts and list them on the printer. The Vendor will calculate the Random Numbers for you.

EXAMPLE:

```
-----2-----  
                ADD CUSTOMERS  
ADDED CUSTOMER # 52    64322210004527  
-----
```

The 52 means that this is the 52nd customer number calculated for use on this machine.

5. DELETE CUSTOMERS

ENTER (4-digit identifier) Account Number to DELETE XXXX

To delete a customer, the VENDOR will ask you for the account that you wish to delete. You enter the four-digit identifier account number and press -ENTER-. When it deletes the account, it will print the status of that customer's last transaction.

If you delete #1000, the following printout will be made:

EXAMPLE:

```
-----  
                DELETE CUSTOMER  
  
DELETED CUSTOMER # 1000-4527 DATE 10/15  
  
T#1      T#2      PAST/CRED      TOT SALE      TOT CRED  
250 I      0 I      1.25          0.00          1.25
```

```
-----  
T#1      First Tape from      T#2      Second Tape  
250 I = slot 250 is I (In).      0 I = 0 (Not rented)
```

NOTICE: FOR PURPOSES OF ACCESSING CUSTOMERS' ACCOUNTS WE USE ONLY THE FOUR-DIGIT PART OF THEIR FOURTEEN-DIGIT NUMBERS, NAMELY THE 7TH, 8TH, 9TH, AND 10TH NUMBERS. TO ACCESS CREDIT ACCOUNT CUSTOMERS OR ACCOUNT CARD CUSTOMERS, WE MAY ENTER THE ENTIRE CREDIT CARD OR ACCOUNT CARD NUMBER IN "OPTION 10" OF THE MAIN MENU AND THE FOUR-DIGIT NUMBER ASSIGNED TO THAT ACCOUNT WILL BE DISPLAYED. ONCE YOU KNOW THE FOUR-DIGIT NUMBER, YOU WILL USE IT FOR ALL INTERNAL REFERENCE TO THAT CUSTOMER.

6. TAPE PRICES

1. RENTAL
 2. SALE
 3. XTRA-DAY
 4. DAILY DISCOUNTS
 5. DAYS CLOSED
- SELECT__

In the tape Prices function, you can (1) change a rental price on a specific tape or range of tape locations anywhere in the machine, (2) set the sale price of any individual tape or any range of locations in the machine, (3) set the extra-day fees by individual tape or range, (4) set the daily discounts you wish to deduct from all the rentals on any day of the week. (5) set the day(s) customers will not be charged late (extra-day) fees.

ENTER SELECTION #1

Enter Tape# XXX

New Rental Price XXXXX

Old Rental Price \$2.00

End of Range XXX

To set rental prices, (The TWO-FOR System no longer has to be off to Set Prices) enter the starting tape location, you will then be shown the current "old" rental or sale price for that tape. You are asked to enter the new rental price up to \$63.75 for rentals and \$655.25 for sale items. The screen will now display the New Rental Price and ask you to enter the ending slot location of that price range.

The Two-For prices are set by turning on the Two-For function in feature #11 then coming back to feature 6 Rental Prices and setting the following:

"Two-For Price" XXXX New XXX "Single Price" XXXX New XXX

You enter the prices where the X's are shown and press enter after each number value desired.

ENTER SELECTION 3:

EXTRA DAY CHARGES

ENTER TAPE # XXX

NEW CHARGE = 300

OLD CHARGE = \$2.00

END OF RANGE = XXX

You can change all extra-day charges by location number or by range of locations.

ENTER SELECTION #4:

DAILY DISCOUNTS

1) MON = 1.00

2) TUE = 0.00

3) WED = 0.00

4) THU = 0.50

5) FRI = 0.50

6) SAT = 0.00

7) SUN = 0.00

ENTER SELECTION (Day) __X

ENTER AMOUNT XXX

The daily discount feature allows you to enter amounts of money you wish to allow as discounts on specific days of the week. This will apply to ALL RENTAL tapes in the machine. Refer to Feature #11, 2a "11-Digit Account Card" for other discount information.

You can enter a discount on any day for any amount up to \$63.75 off the regular rental price. ALL TAPES in the machine are discounted by the amount selected ON THAT DAY.

If the system is set for "Two-For" operation (in feature #11 on the main menu) you CANNOT use the daily discount feature or change the normal rental prices, but you CAN change sale prices. All discounts must be in \$0.25 increments.

ENTER SELECTION 5:

DAYS CLOSED

- | | |
|---------------|-----------------|
| 1) Mon = OPEN | 5) Fri = OPEN |
| 2) Tue = OPEN | 6) Sat = OPEN |
| 3) Wed = OPEN | 7) Sun = CLOSED |
| 4) Thu = OPEN | |

Press Selection ____

You can turn off extra-day charges for any day of the week, by pressing the number corresponding to that day (1 thru 7). By pressing that number AGAIN, the day will show the store "OPEN" and the charges will be back on. You can still rent tapes on a closed day. This feature is only meant to shut-off extra day fee's on the day closed.

Example: Most people work 5 days a week at a factory, so Saturday and Sunday you would turn-off the late charges, but people could still rent on Saturday or Sunday.

7. HOLD TAPE (formerly lock out)

ENTER TAPE NUMBER XXX HOLD STATUS = NO HOLD
PRESS 1 TO CHANGE

This function is used for tape slots that are not available for rentals or sales. For example, Title identification slots such as: DRAMA, NEW RELEASES, HORROR SECTIONS OR EMPTY SLOTS, ETC. A slot location can be put on hold even when its tape is out. In this case, the tape can be returned but cannot be re-rented. Enter the numbers that identify those slot locations and the machine will make them unavailable for the customer to access.

8. EARLY RETURN OPTIONS

1. EARLY RETURN TIMER
2. HOURLY DISCOUNTS

ENTER SELECTION

SELECTING 1. GIVES YOU

OLD TIMER = 15

NEW TIMER = XXX

This function allows you to select the number of minutes that a tape is allowed to be out on rental and be returned for full credit.

The Early Return Option works with the Two-For System as follows:

The amount credited for the first early returned tape is the difference between the Two-For Price and the single tape rental price of the tape not returned.

Example: All tape rental price = \$3 and the special Two-For price = \$5 instead of 2 at \$6. Return one tape early and get \$2 credit ($5-3=\2). Return the second tape early and get an additional \$3 credit which is the total the customer deposited \$5.

Example: If you rent a tape at 12:00 and the timer is set for 15 minutes, you have until 12:15 to return the tape and receive full credit for the rental. If you return it after 12:15 no credit will be given. The early return timer can be changed from 0 to 255 minutes, maximum.

SELECTING 2. GIVES YOU
OLD DISCOUNT = 0.00 NEW DISCOUNTS = XXX

The hourly discount is an hourly charge for the rental of a movie. This function allows you to rent tapes by the hour offering a credit to the customer for an early return.

Example: A three dollar movie with a .50 cent new discount or hourly charge. The customer returns the movie in three hours. The customer would receive a \$1.50 credit to his account.

.50/HR X 3 HRS = \$1.50 EFFECTIVE RENTAL CHARGE.
\$3.00 PURCHASE - \$1.50 EFFECTIVE RENTAL CHARGE = \$1.50 CREDIT

Credit is given until the hourly charge equals the full rental price and then no credit is given. In this example credit would be given, until the expired time equaled 6 hours which would be the \$3.00 rental price.

9. X-RATING

1. set Range
2. Set Customer
Select __

OLD START = XXX NEW = NONE OLD END = XXX NEW = XXX
When X-Rated movies will be carried, you have the option of being able to restrict their rental. If you choose to do this, a section where the X-rated movies will be located must be identified. The X-rated slots in the machine must all be contiguous as you cannot have tape locations 100 through 110, 9 spaces, and locations 120 through 130 X-rated locations.

By selecting the Change Range Option, you can enter the new starting tape location and the ending location. If you press 0 there will be NO RANGE, and in that way, all your customers can rent any tape in the machine even if it is X-rated.

ENTER SELECTION 2

ACCT XXXX X RATING = NO PRESS I TO CHANGE

Each customer can be allowed or prohibited from renting X-rated tapes by changing the customer's X-rated status. This is done on an individual account basis, thus limiting the rental of X-rated movies to selected adult customers.

You may allow all credit card customers to be able to rent X-rated movies, or not, by choosing the appropriate option found in the credit card feature in option #11 sub 1. Unless, no range is selected, in which case everyone automatically can rent all movies including X-rated movies.

10. CUSTOMER & TAPE ACCESS

1. ENTER: 3-DIGIT NUMBER FOR TAPE
2. 4-DIGIT NUMBER FOR CUSTOMER
3. 9-, 11-, 13-, OR 16-DIGIT # FOR CREDIT CARD.

ENTER # ____

This section is the customer or tape access screen. In this 77de you can view the history and status of any customer account or tape in the machine.

FOR EXAMPLE:

1. To select a tape status, enter the 3-digit slot location. The screen will show the current customer and the previous customers, the label code, the number of times the movie has been rented, the rental and extra-day price or sale price and the last day rented or returned.

TAPE # 151 ; NO HOLD ;	
CURRENT CUSTOMER	PREVIOUS CUSTOMER
	428670005927345 EXP. 01/90
TAPE ID CODE = 49202	TIMES RENTED/SOLD = 83
RENTED/RETURNED ON 3/26/1989 AT 16:10	
RENTAL PRICE \$2.00	LATE CHARGES \$2.00

2. You can get the status of any customer membership account by entering the account identifier number. To find out the account identifier number for credit card customers or 9 & 11 digit account card customers, enter the credit card or account card number and the screen will display the 4 digit account identifier number assigned to that account. It will show which tape he has out, if he has a credit balance, a past due balance, X-rating approval status, total cash he has put into the machine, last date that he used the machine, and total credits. If a credit card or 9-digit or 11-digit account card was used, the card # and expiration date will be displayed.

CUSTOMER # 5211/2-9320	
RENTAL = 154 IN	RENTAL #2 = 76 OUT
XTRA-DAY BALANCE \$6.00 (OR) CREDIT BALANCE	
X-RATING = NO	
TOTAL CASH 25.00	TOTAL CREDIT 2.00 LAST DATE 3/28

Different kinds of cards could be encoded as follows:

A. 14 DIGITS - normal membership card created either with random numbers by the Video Vendor, or by the operator specifically. The first three numbers are areawide code, next three are store code, next four (most important) are the internal account number identifier and the last four are extra random numbers that can be changed by the customer for security.

B. 10 DIGITS - used the same as the 14-digit card except that the last four numbers are not encoded. The last four numbers must be entered on the keypad by the customer like a PIN number for security.

C. 9 DIGITS - treated like a Visa or Mastercard for acceptance purposes, but no charges are allowed on them. The first three digits are the areawide code of the Vendor(s) and the next six digits are selected by the operator. All machines with the Account Card Feature turned on and a matching areawide code number will allow this card to access it.

D. 11 DIGITS - also treated like the 9-digit card, except the first three numbers are the areawide code, the next three numbers are the store code and the last five numbers are numbers chosen by the operator. All machines with matching areawide and store numbers and the Account Card Feature turned on will allow this card access. However, when an 11-digit card is used, the machine applies the Account Card "discount" set in Feature #11, sub menu 2.

E. 13 or 16 DIGITS - Visa and Mastercard. Visa cards start with the number "4" and Mastercards start with the number "5". Both cards are either 13- or 16-digits long. The Video Vendor is pre-programmed with the secret security codes to help prevent the usage of ATM bank cards.

CUSTOMER #0007/8
CREDIT CARD #4128776284723456 EXP. 02/88 CHARGES 40.00
RENTAL #1 = 42 IN RENTAL #2 = 0 IN
ACCOUNT IN GOOD STANDING
X-RATING = YES
TOTAL CASH \$50.00 TOTAL CREDITS \$0.00 LAST DAY 03/29

To INVALIDATE A 9-, 11-, 13- or 16-DIGIT CARD, that is, to put the card number on a "Bad List", enter the entire card number. If the machine does not find the number as being currently active, (open), it will tell you "the number is not found". Press -1- to add the card number to the Bad List or press 2 = new account. By pressing -1- on the keypad, you have added that card to the machine's Bad List. If anyone tries to use the card, a message will appear on the monitor indicating that the card is invalid. If the card account you are trying to invalidate is active, then the machine will display the 4 digit account number assigned to that card and you will have to delete the account number before invalidating the card.

To remove a card from the Bad List enter the entire number and the machine will tell you it is on the Bad List. Press 1 to take it off.

To add a 9, 11, 13 or 16 digit card to the customer list and to create a customer account, simply enter the number as stated above. If it is not found, The message appears as follows:

NOT FOUND! 1= BAD LIST 2 = NEW ACCOUNT

Press 1 to add the card to the bad list or press 2 to add to the customer list and tell you it's 4 digit account number.

11. SYSTEM OPTIONS

This feature offers the Video Vendor operator flexibility in operating his business by choosing different combinations of the following options.

- | | | | |
|--------------------|----------|----------------------|-------------------|
| 1. CREDIT CARD | = ON/OFF | 9. TWO-FOR SYSTEM | = ON/OFF |
| 2. X-RATED RENTALS | = ON/OFF | 10. PIN NUMBER | = ON/OFF |
| 3. MINIMUM CHARGE | = XXXX | 11. STANDARD FORMULA | = ON/OFF |
| 4. MEMBERSHIP FEE | = X.XX | 12. PIN SEED | = XXX |
| 5. CREDITS GIVEN | = X.XX | 13. HOLD TAPES | = ON/OFF |
| 6. ACCOUNT CARDS | = ON/OFF | 14. COIN VALUE | = X.XX |
| 7. PERCENT | = XX | 15. PRINTER | = ALWAYS/NEVER. |
| 8. QUICK RETURN | = ON/OFF | | ON REQUEST/RS-232 |
| | | 16. OVERRIDE TAPES | = 1 TO 15 MAX |
| | | 17. TAPES/ACCOUNT | = X |
| | | 18. PRE-MEMBERSHIP | = ON/OFF |

ENTER SELECTION -----

1: CREDIT CARDS = ON/OFF.

Pressing 1 turns this system on. This will allow customers to use Visa or Mastercard for identification and for payment of fees (if the transaction costs are higher than the "minimum charge" amount which you have set in this feature. sub #3)

2. X-RATED RENTALS = ON/OFF

Pressing 2 on this feature allows rental of X-Rated areas of the machine (if an X-Rated range was set) to be accessed with Visa or Mastercard.

3. MINIMUM CHARGE = X.XX

This feature sets the minimum amount that a Visa or Mastercard customer is allowed to charge for either tape rentals, sales or extra-day fees. The setting of 0.00 means the customer can charge any amount over \$0.25. Select the amount you want for a minimum charge and press the enter key.

4. MEMBERSHIP FEE = X.XX

This feature allows you to set a payment amount which a customer can make to automatically receive credit on his account in the amount you set in the next feature:

The Membership option is turned on by entering an amount from 0 (OFF) to 6375 (\$63.75). This amount is paid in cash or it may be charged by Visa or Mastercard customers. The amount to be charged to the customer's account will appear on the next bookkeeping report run in the "Charge" column of the Credit Card Register.

5. CREDITS GIVEN = X.XX

This is where you enter the amount of credit you wish to give customers who pay a membership fee. Enter the amount from 0 to 65525 (\$655.25). This amount will be credited to the accounts of membership purchasers.

EXAMPLE: If you set a \$5.00 Membership Fee which buys \$10.00 worth of credit, a customer in good standing will be given up to three options: rent one tape or two tapes or purchase a membership.

NOTE: The third option is available only to customers whose account has no credit or debit balance and no movies are out.

6. ACCOUNT CARDS = ON/OFF

Turning this system ON will allow your machine to read several additional cards prepared for exclusive use with the Video Vendor.

9-digit Account Card called a "Club Card". This card will be read as if it were a credit card, except it will not allow charges. The first three digits of the encoding must be the same as the areawide code of the Video Vendor. One major purpose of this feature is to allow customers to use multiple machines owned or operated by one person. You can issue a card to a customer that can access all of your machines as long as they all have the same areawide code number.

A 10-digit Account Card is actually a 14-digit card with only the first 10 digits encoded. The last 4 digits must be entered on the keypad. The last four digits may be changed by the customer just as with the 14-digit membership number.

An 11-digit Account Card, which has the first six digits matching the areawide code and store code of the machine, allows the customer to rent at a discount. This feature could be used when monthly membership fees are charged and these customers pay only late charges incurred.

7. PERCENT = XX

PRESS 7 TO ENTER

PUT IN NEW PERCENT AND PRESS ENTER

The number entered here will create a discount off the regular rental price for 11 digit account cards only. If daily discounts are set, then the discount for the 11-digit card will be figured from the daily discounted price. Enter "10" and there will be a 10% discount. Enter "100" and users will rent FREE for the FIRST DAY. 11-digit account users will always be liable for all extra-day fees incurred.

8. QUICK RETURN = ON/OFF PRESS 8 TO CHANGE STATUS

This feature allows the customer to return movies without using the membercard. Merely by entering the movie slot number of the movie to be returned, and pressing enter, the transport will come up and accept the movie and put it away and update the customer's account.

10. PIN NUMBERS = ON/OFF PRESS 10 TO CHANGE STATUS

PIN numbers in this feature are Personal Identification Numbers used only with Visa or Mastercard for additional registration with the owner/operator of the machine to identify customers. The owner/operator must use the Video Vendor PIN number calculator to get the PIN number for his credit card customers. When the Visa or Mastercard number is entered in our specially programmed video vendor calculator, a four-digit PIN number is displayed. This four digit number is then told to the Visa/Mastercard customer to be entered on the keypad after sliding his Visa or Mastercard through the Video Vendor card reader.

If you choose the PIN number option you must answer 10 and 11.

11. STANDARD PIN FORMULA = ON/OFF PRESS 11 TO CHANGE

12. PIN SEED = XXX NEW SEED # XXX

The PIN number calculator is pre-set for a Standard Seed # formula. If you change the Seed # on the Video Vendor (here), you must also change the Seed # in the calculator when it asks that question. Changing the Seed # changes the formula for calculating PIN numbers.

9. TWO FOR SYSTEM = ON/OFF PRESS 9 TO CHANGE

This feature turns the Two-For feature on or off. The Two-for prices must be set in feature #6 tape prices.

The Two-for System allows rental of two tapes for one special price. When this feature is turned on, you set one single tape rental price for all the tapes in the machine. you do this in feature #6 Set Rental Prices. your special Two-For Price is something less then 2 times the normal rental price.

EXAMPLE: All Rental \$3.00 or Two-For \$5.00.

If a customer returns the movies within the normal 15 minute early return period, he receives credit as follows: on the first movie returned he gets the difference between the normal single rental price and the special Two-For price. $\$5.00 - \$3.00 = \$2.00$ credit. on the second movie returned he gets the normal rental price of \$3.00 in this example credited to his account.

NOTE: When the "Two-for" Option is selected, you CANNOT USE the Daily Discount Option. If the machine malfunctions and fails to vend either movie, full credit will be given equal to the amount deposited.

13. HOLD TAPES = ON/OFF

This feature is switched every time you Enter selection "13" using the keypad. The NORMAL MODE of operation of the Video Vendor is hold tapes off. All locations are available for rental or sale as set up by the operator. Tapes set on hold using Feature 7 "Hold Tape" are not available for rental or sale. Activating the hold tape on feature here, places the entire machine on hold making no tapes available for rental or sale. Customers can only return previously rented tapes. This feature is useful in the event the machine is to be moved to a new location and you want to have all tapes returned prior to the move.

If you turn this feature OFF, ON and OFF again, you will RESET all tapes put ON HOLD in feature #7 Hold Tapes. If those tapes or section identifiers are to remain "on hold", you must return to feature #7 and reinstate the "on hold" condition for those locations.

14. COIN VALUE = X.XX

OLD VALUE = 0.00

NEW VALUE .25

This feature allows the use of tokens which can be assigned any monetary value. Thereby a customer can be issued a token and use it to rent movies. Whatever value you set will also be the value of a quarter. So you must set your machine for .25 cents until you convert over to a token acceptor only.

Call Video Vendor for information and prices on currently available token mechanisms.

15. CHANGES STATUS OF PRINTER ON/OFF ETC.

This feature is a 4 position switch. Every time you press the 1 to 5 keys and the enter key. You select the next position.

The positions are:

PRINTER=ALWAYS

THE PRINTER IS ALWAYS ON

PRINTER=ON REQUEST

THE CUSTOMER WILL HAVE A 5 SECOND MESSAGE TO PRESS ANY KEY TO GET A PRINTED RECEIPT. THE SCREEN WILL DISPLAY THE RECEIPT. THE PRINTER WILL GO ON AUTOMATICALLY WHEN THE SERVICE DOOR IS OPENED.

PRINTER=NEVER

THE CUSTOMER WILL ONLY SEE A COPY OF THE RECEIPT ON THE SCREEN. HE WILL NOT BE GIVEN THE OPTION TO GET A PAPER RECEIPT. THE PRINTER WILL TURN ON AUTOMATICALLY WHEN THE SERVICE DOOR IS OPEN.

PRINTER = RS-232

THIS FEATURE ALLOWS YOU TO USE THE RS-232 PORT ON THE

16. OVERRIDE TAPES = 1 TO 15 MAX

This feature sets aside up to 15 slots from #320 to #306, for holding cassettes which cannot be returned to the proper slot by the robotic arm. You may select a number of slots in between 0 and 15 for this feature. Movies will be put into these slots in order, one after another, perpetually rotating. You must manually empty them before the robotic arm tries to put a movie into a previously filled slot.

Example: A customer returns a tape upside down and walks away. The vendor will try to read the label. Upon failing to get a good read the Vendor will beep and try to return the tape to the customer. If the tape is not removed in 20 seconds the Vendor will put the tape in the first selected override slot for manual handling. This allows the Vendor to remain in normal operation for other rentals and returns.

17. TAPES/ACCOUNT=X

This allows you to decide how many tapes you will allow each account to rent. Your choices are 1 or 2.

18. PRE-MEMBERSHIP=ON/OFF

Allows you to establish 10 digit accounts using the machine's area and store code and the first four of the next 8 numbers created by the machine in adding customers. These ten digit accounts, which must be on mag stripe cards only, will be allowed to rent the pre-set number of movies and will bypass the rental fee. In other words these accounts will always rent free. This can be used when selling monthly memberships and giving free rentals to these members.

12. SET AREA AND STORE CODE

Using this feature, you will set your "AREAWIDE CODE": a RANDOM, three-digit number of your choice. DO NOT use your telephone area code because this is too common and may create duplications with other Video Vendor operators. DO NOT use a zero for the first # of either the Area Code or Store Code. You will also set your "STORE CODE": a three-digit number of your choice used to distinguish each Vendor location. The machine comes with PRESET numbers for the areawide code and store code. When the machine arrives for installation, these codes must be changed to numbers that the owner chooses.

EXAMPLE: OLD AREA CODE = 311 NEW AREA CODE = 643
 OLD STORE CODE = 505 NEW STORE CODE = 222

13. LISTING

1-HOLD TAPE LIST	6-DEBIT REGISTER	11-CREDIT CARD REGISTER
2-PRICE LIST	7-STUDIO REGISTER	12-TRANSPORT ERROR LIST
3-CUSTOMER LIST	8-Y OFFSET LABEL	13-ACTIVE CUSTOMER LIST
4-PAST DUE LIST	9-SERVICE TOTALS	14-CREDIT REGISTER
5-TAPE REGISTER	10-INVALID TAPE LIST	15-INNACTIVE TAPE LIST

This feature allows you to get various individual printouts as listed above. These listings are similar to those provided in the Bookkeeping Mode except that these are available in any order and your choice as you select them, whereas in Bookkeeping, they are preset and print all at one time.

Sample listings are shown below:

1-Hold Tape List

AREA = 101 Mar. 26, 1989 STORE = 105
 HOLD TAPE LIST
=====

20 100 140 180 220 260 300

Run this list occasionally to be sure that no movies have been put "ON HOLD" accidentally.

2-Price List

AREA = 101 Mar. 26, 1989 STORE = 105
 RENTAL PRICES
=====

1= 5.00	2= 5.00	3= 5.00	4= 5.00
5= 5.00	6= 5.00	7= 5.00	8= 5.00
277= 2.00	278= 2.00	279= 2.00	280= 2.00
297= 1.00	298= 1.00	299= 1.00	300= 1.00

 SALE PRICES
=====

313= 20.00	314= 20.00	315= 20.00
316= 20.00	317= 20.00	318= 20.00
319= 20.00	320= 20.00	

3-Customer List

AREA = 101 Mar. 26, 1989 STORE = 105
CUSTOMER LIST

ACCT #	TOTAL SALE	TOTAL CRED	LAST DATE
0001/2	5.00	0.00	03/18
0005/6	10.00	0.00	02/11
0017/8	10.00	0.00	02/18
0021/2	0.00	0.00	01/12
0035/6	3.00	0.00	03/22
0067/8	3.00	0.00	03/20
0115/6	3.00	0.00	02/16
0125/6	0.00	2.00	03/13

4-Past Due List

AREA = 101 Mar. 26, 1989 STORE = 105
PAST DUE LIST

Tape #	Cust #	Date	Days Late
66	1111/2	03/22/1989	3
72	4443/4	03/25/1989	0
108	2221/2	03/22/1989	3
112	3333/4	03/24/1989	1
150	4443/4	03/25/1989	0

5-Tape Register

AREA = 101 Mar. 26, 1989 STORE = 105
TAPE REGISTER

Tape #	Date	Rentals	Status
1	03/10/89	2	3333 IN
2	03/25/89	6	CARD OUT
3	02/09/89	0	0000 IN
4	03/24/89	9	1111 OUT
5	03/25/89	5	2222 OUT
6	03/16/89	1	4444 IN

6-Debit Register

 SERVICE DOOR OPENED: 03/26/1989 10:39:36

AREA = 101 Mar. 26, 1989 STORE = 105
 DEBIT REGISTER

Acct #	Credits	Xtra-Days	Last Date
0001/2		12.00	03/25
5211/2		84.00	03/06
TOTAL	0.00	96.00	

7-Studio Register

AREA = 101 Mar. 26, 1989 STORE = 105
 STUDIO REGISTER
 MAR. 9, 1989 THRU MAR. 26, 1989

Control #	Times Rented
64095	4
65317	1
66245	0

CHECK this list occasionally. If any numbers appear, it would indicate a problem label or reader since no studio register numbers have been released.

8-Y Offset Label

 AREA = 101 Mar. 26, 1989 STORE = 105

Locations	
1- 40 = 40250	41- 80 = 34630
81- 120 = 28800	121- 160 = 23130
161 200 = 17400	201- 240 = 11770
241 280 = 5940	281- 320 = 225

X-Count = 3160 Access Count = 19660

* CAUTION - See Manual Before Changing *

9-Service Totals

AREA = 101 Mar. 26, 1989 STORE = 105

SERVICE TOTALS

INCOME FROM RENTALS = 1,011.00
INCOME FROM SALES = 50.00
INCOMES FROM PERIOD = 1,061.00
TOTAL RENTALS = 502
GRAND TOTAL RENTALS = 5,007
SERVICE CREDITS = 30.00
TOTAL CUSTOMERS = 951
LAST SERVICE DATE = FEB. 23, 1989
GRAND TOTAL SALES = 10,572.00

10-Invalid Tape List

AREA = 101 Mar. 26, 1989 STORE = 105

INVALID TAPE REG.

147 = 33173 190 = 9262

11-Credit Card Register .

AREA = 101 Mar. 26, 1989 STORE = 105

CREDIT CARD REGISTER

Acct	Credit Card No	Exp.	Date	Charge
0001	123456222	00/00	03/13	0.00
TOTAL				0.00

12-TRANSPORT ERROR REGISTER

AREA = 123 MAY 19, 1989 STORE = 456

TRANSPORT ERRORS

DATE	TIME	ERROR
04/06	15:17	157
04/06	15:00	157
04/06	14:58	157
04/06	14:46	157
04/06	14:44	157
04/06	14:31	156

13-ACTIVE CUSTOMER LIST

AREA = 123

MAY 19, 1989

STORE = 456

ACTIVE CUSTOMER LIST

ACCT #

123456	0001-0001
123456	0003-0003
123456	0005-006
123456	0007-CARD
123456	0009-CARD
123456	0011-CARD
123456	0015-CARD
123456	0067-7538
123456	0081-0607
123456	0095-3564
123456	0125-1487
123456	0145-1243
123456	0713-3915

14-CREDIT REGISTER

AREA = 101

MAR 26, 1989
CREDIT REGISTER

STORE = 105

ACCT #	CREDITS	XTRA-DAYS	LAST DATE
1111/2	4.50		03/22
3125/6	2.50		03/24
4459/0	14.50		03/26
8851/0	2.00		03/30
TOTAL	23.50	00.00	

15 INNACTIVE TAPE LIST

Prints list of all movies which have not rented since last zero-out-of-bookkeeping.

14. SET DATE & TIME

This feature is used to set the internal time clock of the VENDOR. It will ask for the "date". The format for this is:

ENTER NEW DATE ____
FORMAT = MMDDYYYY (month-day-year)

The month is a two digit number, the day is a two digit number, and the year is a four digit number. So to enter the date of January 3, 1989 you would type in - 01031989 - followed by pressing the -ENTER- key.

ENTER NEW TIME ____
FORMAT = HHMM (hours-minutes)

EXAMPLE: To enter 4 AM
You press 0400 followed by pressing the -ENTER- KEY.
3:05 PM is 1505.

Lastly, it will ask you for the day of the week. Days of the week use a 1 - 7 code format:

ENTER NEW DAY ____
MON THRU SUN = 1 THRU 7

1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday
5 = Friday 6 = Saturday 7 = Sunday

EXAMPLE: To enter Wednesday, Press -3- and the -ENTER- Key.

15. ADJUSTMENT COUNTS

This sub menu is for adjusting the retriever X and Y Counts. X is movement left and right. Y is movement up and down. The numbers are set in the factory and should not need to be changed.

These numbers are for the physical repositioning of the retriever assembly.

"Location ____XXX (Access Door 999)"

When considering the subject of setting "X" and "Y" Counts, it is important to keep in mind that the "X" Count need only be set ONCE for the entire machine, whereas, a correct "Y" Count must be set for EACH SHELF and the ACCESS DOOR.

NOTE: Each number, added or subtracted from X and Y Counts, moves the transport .0014 inches. Adding numbers moves the transport away from "Home" (the lower right corner) and subtracting moves the transport closer to "Home".

HOW TO SET THE Y COUNT

1. Open the large Lexan doors and cheat the interlock switch so the transport will work with the doors open.
2. Enter Selection "15" ADJUST COUNTS. Then Enter Location #150 which will send the retriever to slot #150.
3. Remove the retriever cover.
4. Adjust the position of the tape carriage floor until it is PERFECTLY LEVEL with the shelf by adding or subtracting counts. from the "OLD Y COUNT" on the Monitor, and sending the retriever back to location 150. Test the levelness by manually sliding a cassette from retriever to shelf and back again (See Pg. 33 FIG. 1)
5. When the retriever carriage floor is perfectly level with the shelf, SUBTRACT 60 from the number shown for "Old Y Count" and Enter the DECREASED NUMBER as "New Y Count". Now send the retriever back to slot #150 again.

6. Checking the location, you should be able to slide the tape off the shelf manually. It should fall into the carriage which is now 3/32" BELOW THE SHELF. Therefore, pushing the tape back toward the shelf, it should not be able to be reshelfed.

7. Without moving the retriever up or down, right or left, CAREFULLY reinstall the metal, retriever cover.

8. If your retriever cover does not have a plastic arrow, Part #4A-1037, install one as shown on Pg. 34 in FIG. 2.

9. Take a Test Tape (one you will not use for rental purposes) and place a strip of masking tape along the edge of the cassette as shown in FIG. 3 on Pg. 34. Insert the Test Tape in the slot just to the left of the retriever cover, so that the arrow points to the masking tape. Draw a horizontal line on the masking tape just opposite the arrow point. (See FIG. 3)

10. This Test Tape and the pointer are now calibrated to indicate the correct Y alignment anywhere in this machine. You can send the retriever to any slot location placing the Test Tape three slots to the left of that location and adjust the Y Counts so that the pointer is aligned with the mark on the Test Tape. Test the bottom shelf next.

IF you find that you do not have enough room to adjust the transport 60 counts below, you must bend the Y Home interrupter bracket slightly in the upward direction so it will Home a little lower allowing more adjustment room.

IF you had to bend Y Home bracket you must now reset all Y Counts on all shelves.

IF the transport now exhibits a loud, banging noise as it goes Home, you have bent the Y interrupter bracket upward too much or the interrupter is not going through the Y sensor deep enough. You must determine the problem and resolve it.

NOTE: The retriever floor should be slightly below the shelf floor, about 60 counts BELOW LEVEL. The retriever rents (removes tapes from slots) in this position and when returning tapes, automatically positions itself slightly above the shelf.

HOW TO SET THE X COUNT

1. Open the large Lexan doors and cheat the interlock switch so the transport will work with the doors open.

2. Enter Selection "15" ADJUST COUNTS. Put a Test cassette in slot #150, then Enter Location #150 which will send the retriever to slot #150.

3. Remove the retriever cover. Also, remove the bottom service/electronics door exposing the Motor Controller Board (MCB).

4. On the Monitor the Y Count is displayed first. Press -ENTER- to DISPLAY THE X COUNT.

5. Press the black button on the MCB marked "IN" (this will send the grabber toward tape #150), AT THE SAME TIME, OBSERVE the position of the grabber as it surrounds the tape. IF the tape is CENTERED BETWEEN THE GRABBERS (See Pg. 34 FIG. 4) the X Count is correct. Press -ENTER- to keep Old X Count.

IF the tape is NOT CENTERED between the grabbers (Pg. 34 FIG. 5), adjust the X Count to reposition the grabber to the RIGHT by subtracting or to the LEFT by adding (in increments of 20) to the "Old X Count" on the monitor and Enter the adjusted number as "New X Count". Press -ENTER-.

NOTE: It is important that you READ THE MONITOR very carefully because you are changing the computer programmed locations for the movie slots in your machine. if you make a mistake, the retriever will not be sent to the proper location.

6. Retest slot 150 after each change until grabber centers on the tape.

7. Reinstall retriever cover.

NOTE 1: Although the X Count is shown at every shelf location, changing it at any location changes X for ALL locations. Choose a central location (eg. 150) to set X Count.

NOTE 2: The original count numbers are written on a paper tag attached to the inside of the electronics door. Whenever you change counts be sure to correct the numbers on the tag by obtaining a new printout from the Vendor printer.

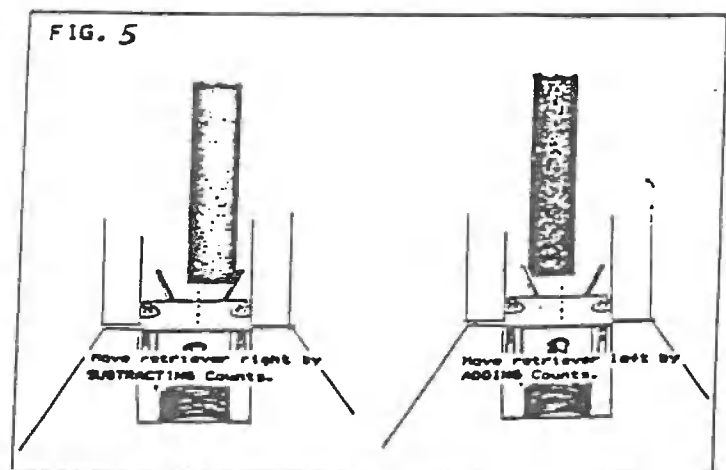
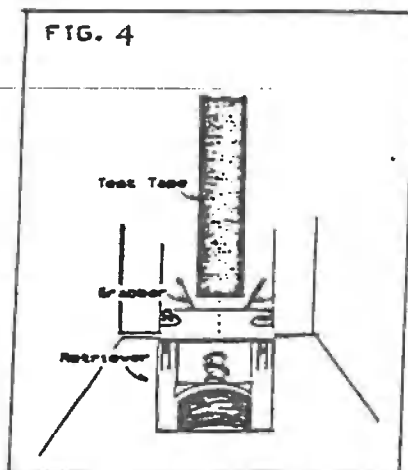
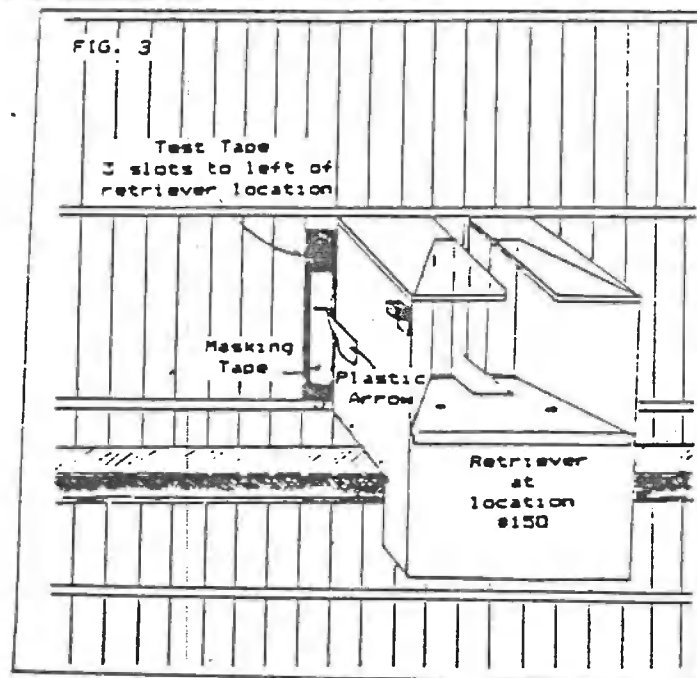
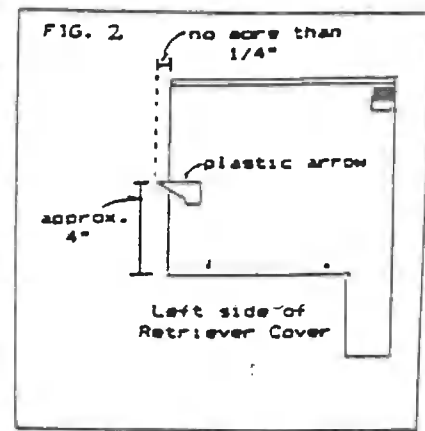
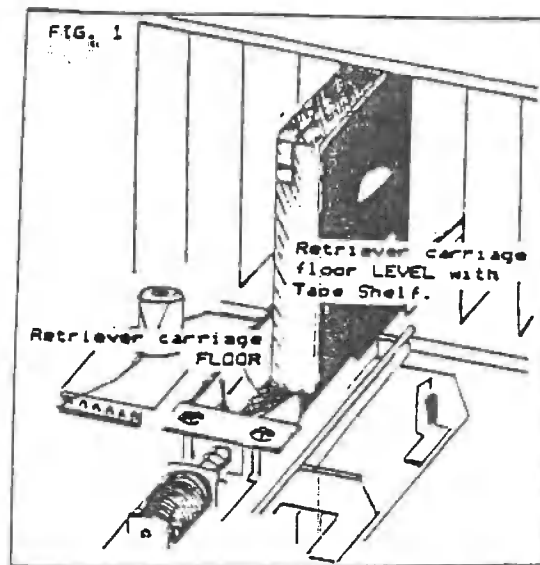
HOW TO SET THE ACCESS DOOR COUNT

The screen displays "Location _ _ _ _ (Access Door 999)". To move the retriever to the Access Door enter 999 and press "ENTER". The retriever will move up to the Tape Access Door. Determine visually if the retriever is in the correct position (level to the Tape Access Door) to vend or receive movie cassettes. The screen will now be displaying:

"Old Y Count (numbers) New Y Count _ _ _ _ _".

By adding numbers to the numbers displayed as "Old" and entering the entire new number as the "New Y Count" and pressing "ENTER", the retriever will go "Home"; then, entering 999 will send the retriever to a higher position. To lower the retriever in relation to the Tape Access Door, subtract numbers from the "Old Y Count".

NOTE: Each number added or subtracted equals .0014 inches.



16. EXAMINE CONTROL #S

This feature is used to examine the control numbers on a Video Tape Label.

If there is a problem with a label on a tape, such as damage by a customer (creating a problem in returning the tape), you may enter the EXAMINE CONTROL #16 and insert the tape for a sample reading of the label.

ENTER SELECTION 16

CONTROL #



= 52178

PLEASE REMOVE TAPE

The Vendor will read and display on the screen a graphic diagram of the label and the decimal number assigned to that label. If the diagram does not match the actual label on the tape, then one of these problems exist: the label is defective, label reader is out of alignment or the label reader is defective. Corrective action should be taken depending on identification of the problem.

17. MESSAGE EDITOR

1-CLEAR LETTER	5-CENTER TEXT	9-END OF LINE
2-PREVIOUS LETTER	6-CURSOR RIGHT	10-INVERT LETTER
3-ABORT EDIT	7-START OF LINE	-ENTER- = EXIT & SAVE
4-CURSOR LEFT	8-NEXT LETTER	<-- = CLEAR MESSAGE

FOLLOW INSTRUCTIONS ABOVE

This feature allows you to change numerous messages in the machine. The following messages are available:

1. The TITLE SCREEN MESSAGE: A one-line message displayed at the bottom of the screen in the box. It is a maximum of 62 characters long.
2. The RECEIPT MESSAGE: There are 2 message lines available located at the top of the Customer Receipt. These are each a maximum of 40 characters long.
3. The TRAILING MESSAGES: Up to 3 message lines may be printed at the end of a Customer Receipt. They are each a maximum of 40 characters long.

To edit one of the messages, you will be given a very unique word processor which among other things will allow you to enter alpha-numeric characters by using the numeric keypad.

A menu will appear and the Keypad is used as a word processor with the following features:

KEYPAD

- (1)- Clear Letter: will erase the letter at the current cursor position.
- (2)- Previous Letter: will decrement the letter above the cursor, on the display, to the previous letter of the Alphabet. EXAMPLE: F becomes an E.
- (3)- Abort Edit: will exit from the editor and not save any changes.
- (4)- Cursor Left: will move the cursor to the left.
- (5)- Center Text: will center the current text within the work area.
- (6)- Cursor Right: will move the cursor to the right.
- (7)- Start of Line: will move the cursor to the start of the work area.
- (8)- Next Letter: will increment the letter above the cursor, display, to the next letter of the alphabet.
Example: F becomes G.
- (9)- End of line: will move the cursor to the end of the line.
- (10)- Invert Letter: will change the letter from normal to reverse video on the monitor screen only . . . not printed on the receipt paper.
- (ENTER)- will save the work area and exit from the editor.
- (arrow)- will erase the entire message from the work area.

Below the menu on the display screen is the work area for creating the messages and making corrections.

EXAMPLE:

```
-----  
      (message work area)  
    THANK YOU FOR USING THE VIDEO VENDOR  
-----
```

18. RETURN TAPE

ENTER TAPE NUMBER ____

The return tape feature allows you to return a tape to the machine knowing only the tape slot location number. After selecting this feature, you are asked the tape location number. After entering the number, a receipt will be printed and the customer account is automatically updated. You are then instructed to return the tape to the appropriate location simply by sliding the large "LEXAN" viewing doors open and putting the movie in the location indicated. This function is used to return tapes that customers have left at the counter.

If no listing is given when you enter the tape number and the screen changes back to the main menu, then, that tape location was not "out" according to the Vendor. You should investigate further to find out why the Vendor thinks that the tape is "in".

Shown below is an example of a rental return receipt using Feature #18. The first 4 digits of the receipt number is actually the customer account number, (the 7th-8th-9th and 10th numbers of the fourteen-digit membership number or the four-digit number the machine assigns to credit card users). These are the four digits which are used to issue credits, debits, delete, etc. In the example they are "0129".

The last four digits are the actual receipt number "7017".

The receipt also bears a "Store Code" which combines the areawide code (ex. 643) and the store location number (ex. 222). Alternating the digits of these two numbers results in the Store Code #624232 in the examples.

Customer Account #0129

EXAMPLE -----

APR. 26, 1989 4:10PM RECEIPT #01297017

Thank You For Using Video Vendor
(312) 982-0440
STORE CODE #624232

=====

Credit Card Used	MasterCard
Returned #24 from 04/14/89 at	1:13PM
9 XTRA-DAYS TIMES 2.00 =	18.00-
TOTAL AMOUNT DUE.....	18.00-

Come Back Again Soon
Save This Receipt for 30 Days

19. DIAGNOSTICS

EXAMPLE of display on the screen:

(KEY PAD REPRESENTATION)

(7)	(8)	(9)	
Z-IN	UP	Z-OUT	TAPE TOP = NO/YES
(4)	(5)	(6)	TAPE WRONG = NO/YES
LEFT	PRINTER	RIGHT	TAPE FRONT = NO/YES
(1)	(2)	(3)	TAPE BACK = NO/YES
ACCESS	DOWN	GRABBER	
(<--)	(0)	(ENTER)	
MONEY	BEEPER	EXIT	

Version	GRABBER IN	= YES/NO	X HOME	= YES/NO
4.00.00	GRABBER OUT	= YES/NO	Y HOME	= YES/NO
	BILL PULSE	= N/A	COIN PULSE	= N/A
	SERVICE DOOR	= YES/NO	X COUNTER	= XXXXX
	BODY SENSOR	= NO/YES	Y COUNTER	= XXXXX
	ACCESS DOOR	= NO/YES		

CARD DATA =

FOLLOW INSTRUCTIONS ABOVE

In the Diagnostic mode, the keypad is used to activate the indicated Vendor operations and the display Monitor, which is dynamic. It is also used to see the immediate results of the Vendor operations. By the YES/NO indication, you can tell if a switch is open or closed.

In the Diagnostic mode you can read any credit card and the results of that reading will be displayed on the bottom of the screen opposite the words: CARD DATA.

The sensitivity of the BODY SENSOR can be adjusted by turning the small slotted screw located just behind the two red sensor holes which can be reached through the cash box door. The yes/no indication tells you when the body sensor activates and deactivates as you adjust its range (see technical service bulletin #30).

When in Diagnostic Mode it is necessary to press "ENTER" to return to the main menu and "Home" the retriever. When the retriever reaches Home (bottom right corner of the Vendor), the main service menu should appear. You must close the service door to return to the customer screen.

On any error 99 displayed on the screen, do not turn the machine off, just open the service door and choose feature #19 which will bring you to diagnostics. You can now examine all sensors and switches for correct readings, that should give you an indication of what's wrong.

If you would like to override the lexan doors interlock switch to operate the transport while the lexan doors are open, it is necessary to locate the interlock switch in the center and below the sliding doors. Move the wire on the middle connector to the empty bottom connector or use an alligator clip jumper cable to short the two wired terminals together.

----- CAUTION -----

Do not forget to put the wire back OR remove the jumper and use extreme caution when checking or repairing while under power.

20. BUBBLE UTILITIES

COPY BUBBLE UTILITIES

- 1-Main to Back Up
- 2-Message From Main to Back Up
- 3-Message From Back Up to Main
- 4-Main to RS-232

Select_____

This option provides you with back up for your on-going business files. To run this option you need an additional Bubble Card and an Auxiliary Bubble Memory Extender Card ABM-1000. The Back Up Bubble is placed in the extender card and the extender is inserted into either one of the two standard buss slots on the MPB-1000 board. After installation, Power-up the Vendor, enter Service Feature "20" and option "1-Main to Back Up". Enter 1 and the Vendor will copy the Main Memory to the Back Up Bubble. After this initial function, the Back Up Bubble will be updated automatically. If you ever have a Main Memory failure, all you need to do is Power-down the machine, remove the Main Bubble and replace it with the Back Up Bubble which should have all the current data.

There are two additional options for transferring message data which was created on an external source. Additional information will be available in upcoming Technical Bulletins.

Number 4 main to RS-232 allows the sending of the entire bubble data out the RS-232 port on the MPB 1000 board in ASCII format at the BAUD rate selected in option 21 communications.

21. COMMUNICATIONS

COMMUNICATIONS MENU

- | | | |
|----------------------|--------------------------|------------------|
| 1. TAPE REGISTER | 7. HOLD TAPE LIST | 13. MESSAGE LIST |
| 2. CUSTOMER REGISTER | 8. PRICE LIST | |
| 3. CARD REGISTER | 9. CUSTOMER LIST | 14. TIME=12:00 |
| 4. STUDIO REGISTER | 10. PAST DUE LIST | 15. SPEED=300/ |
| 5. SERVICE TOTALS | 11. TRANS ERROR LIST | 4800/2400/ |
| 6. INVALID LIST | 12. ACTIVE CUSTOMER LIST | 1200 BAUD |

ENTER SELECTION____

DOWNLOADING ORDER = NONE

This option allows you to set the order and list which will be printed on the printer or transmitted to the RS 232 port at the end of bookkeeping. if nothing is selected then nothing will be printed in bookkeeping.

To select a list to be printed just press the key representing that list and press the - ENTER- key.

To delete a list from the printout just press the key representing that list and press the - ENTER - key and it will be deleted.

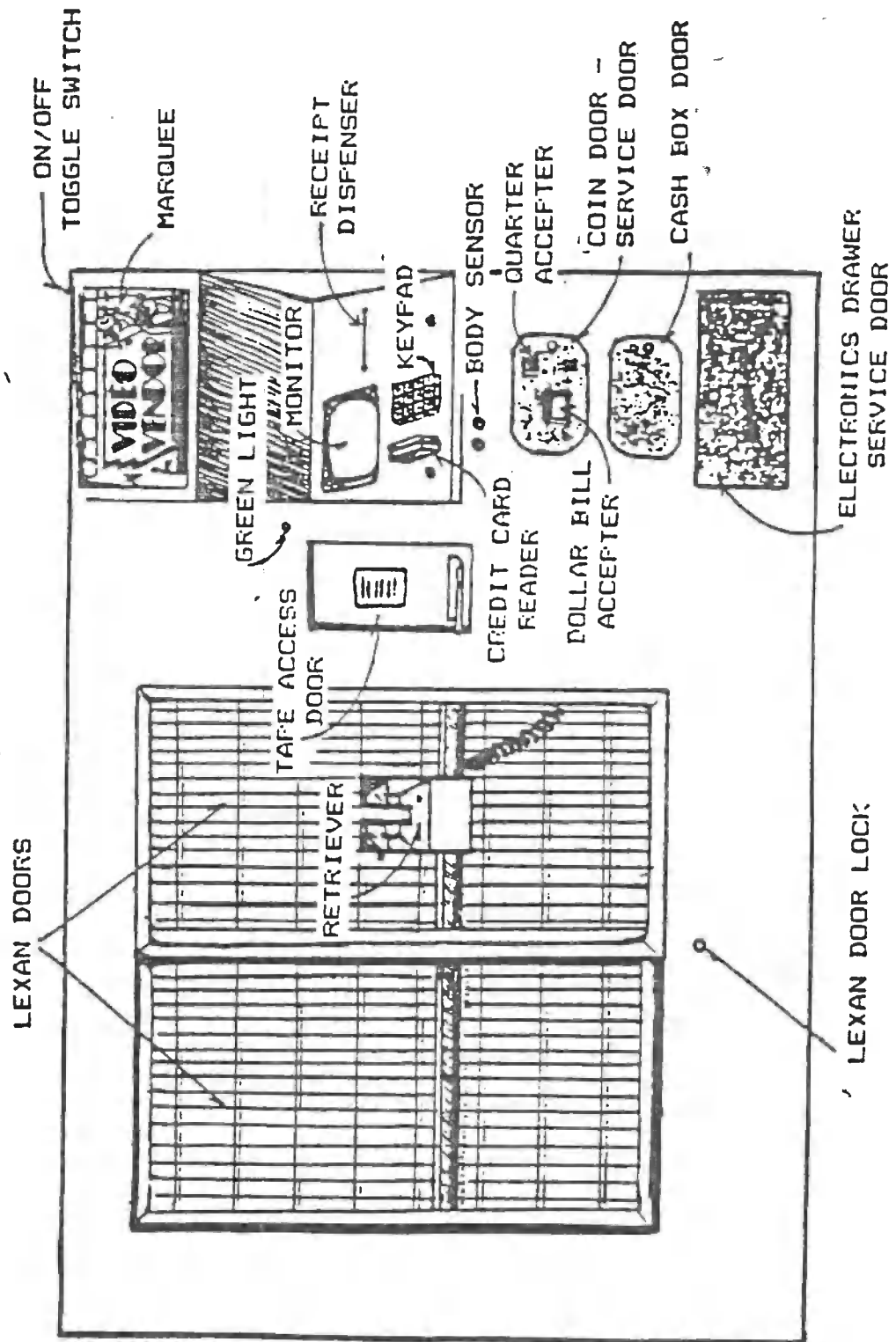
When adding a list you will be asked the question "FOLLOW WHICH LIST", just enter the selected list number which you want the present list to follow or enter nothing and it will be put last on the list.

The Time is when you wish the Vendor to transmit over a MODEM to your host computer, if you are using this option.

To turn off the transmit function enter 24 which will turn it off.

BAUD is the speed you wish to use to transmit to either a MODEM, portable computer or cassette drive. Speeds available are 300/1200/2400/4800/BAUD.

MACHINE DIAGRAM

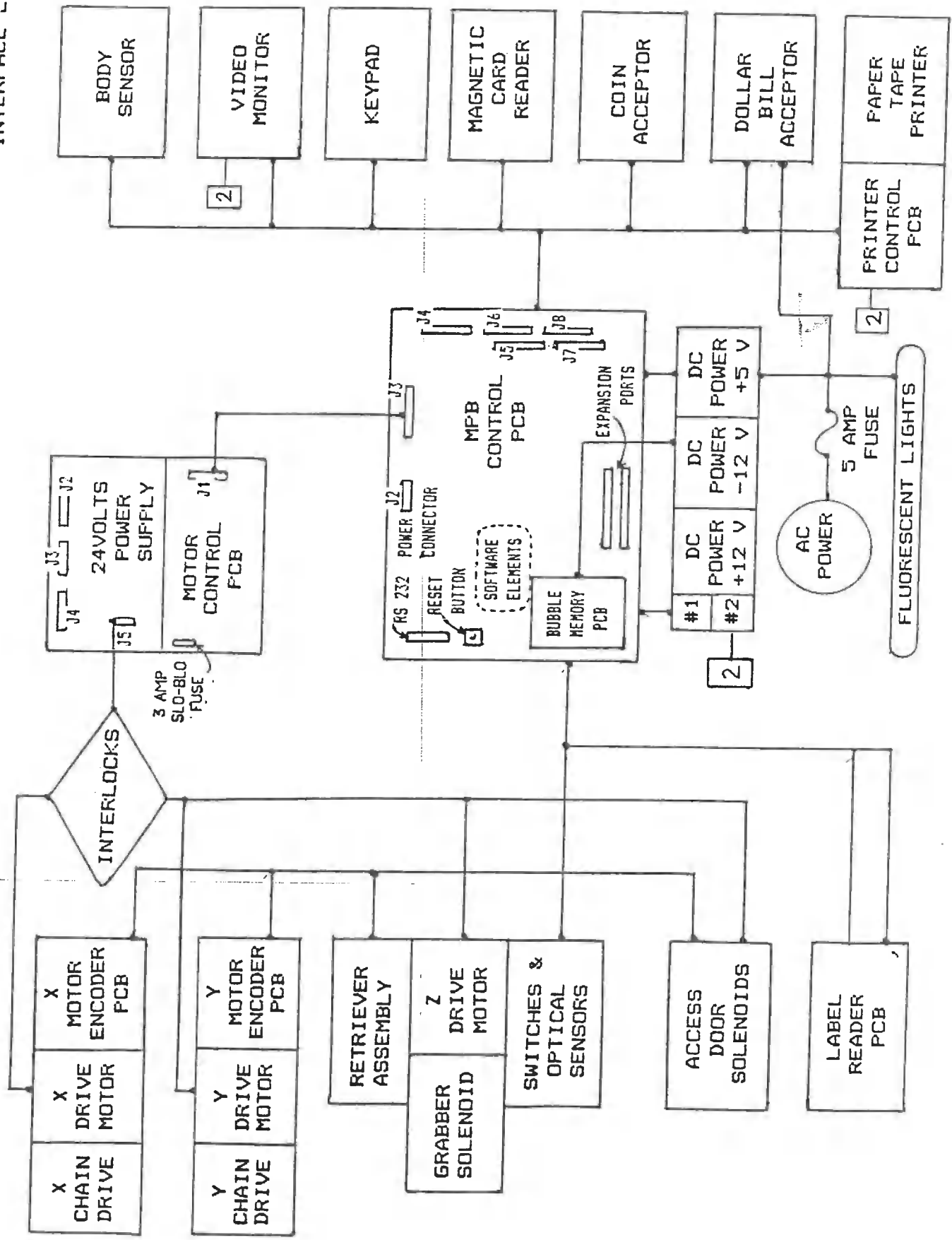


VIDEO VENDOR BLOCK DIAGRAM

SPORT ELEMENTS

CONTROL ELEMENTS

CUSTOMER INTERFACE ELEMENTS



BLOCK DIAGRAM INFORMATION

The VIDEO VENDOR is an automated video cassette tape vending machine. It consists of four main elements which are:

1. The Software Control Program which resides on the MPB BOARD in the form of a stored program entered in PROM MEMORY CHIPS.
2. The Customer Interface Elements which consist of all the interaction devices located in the front right side of the Vendor. These elements are: the Customer Sensor, Video Monitor, Keypad, Magnetic Card Reader, Coin Acceptor, Dollar Validator, Paper Tape Printer, and the Access Door.
3. The Control Elements are located in the maintenance drawer on the bottom right hand side of the Vendor. The Control Elements consist of the DC power supplies, Main Processor Board PCB, the Bubble Memory PCB, and the Motor Control PCB.
4. The Transport Elements are located on the left side of the Vendor just inside the clear lexan doors. These elements are made up of the "X", "Y", and "Z" motors; retriever assembly, label reader, motor encoder, various solenoids, and physical chains which drive the retriever assembly.

FCC APPROVAL

WARNING: THIS EQUIPMENT GENERATES, USES AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE INTERFERENCE TO RADIO COMMUNICATIONS. IT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS "A" COMPUTING DEVICE PURSUANT TO SUBPART "J" OF PART 15 OF FCC RULES, WHICH ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST SUCH INTERFERENCE WHEN OPERATED IN A COMMERCIAL ENVIRONMENT. OPERATION OF THIS EQUIPMENT WITH NON-CERTIFIED PERIPHERALS IS LIKELY TO RESULT IN INTERFERENCE TO RADIO AND TV RECEPTION.

THEORY OF OPERATION

To understand how the VIDEO VENDOR functions, the following is a description of the sequence of events that the Vendor goes through during a RENTAL CYCLE.

The heart of the Video Vendor is the software which resides on the MPB 1000 board, located in the electronics drawer at the bottom right side of the Vendor. The MPB 1000 controls the sequence of the events and input/output functions between all the modules which comprise the make-up of the Video Vendor.

When the Video Vendor is powered on, it goes through built-in self-diagnostic routines, which check the MPB 1000 electronics, and the condition of the switches in the robotic transport. If it encounters an error condition, the Vendor will either try on its own to clear it or indicate the error condition (on the monitor and printout), stopping operation until the error condition is corrected. In some cases, the Vendor will print a series of numbers which can be used to trouble-shoot a problem. If the robotics fail to successfully execute their prescribed functions on the first try, they'll try again. If they fail again, or if the machine goes into any error mode, it will shut off and re-power up trying to self diagnose and correct it's problem.

The correct condition of the Vendor for customer use is: The Robotic Transport must be "Home", both X & Y in a YES condition. The retriever will be located at the bottom right corner of the Vendor with both X & Y interrupters blocking their respective photo cell sensors.

The retriever sensors must also meet these conditions: NO Tape Top, NO Tape Wrong, NO Tape Back, NO Tape Front, Grabber In NO and Grabber Out YES.

All the interlocks must be CLOSED so that the X & Y motors can run. The interlocks are located on the lexan doors, and the tape access door.

The two service doors must also be CLOSED, so the proper menu will be offered to the Vendor customers.

Now that we know the "normal" condition of the Vendor, we can move on to a discussion of the Rental Sequence Operation.

In the normal operational condition, the Vendor "looks" out of the two red lens covers, located just below the Keypad at the front of the machine. The module called "The Body Sensor" is located behind the lenses inside the machine.

As a customer moves in front of the VENDOR, the Body Sensor activates the Video Display Monitor, the Keypad and the Credit Card Reader making it ready to communicate with the customer.

The Video Display Monitor is the visual communication device between the Vendor and the customer. The Card Reader and Keypad are the physical communication devices between the customer and the Vendor.

The Vendor will ask the customer to identify himself with a valid account number. The Vendor then waits to see which device the customer chooses to enter, either the keypad or credit card reader.

After the choice is made and the number entered, the Vendor will validate the number and present the options available to that customer on the Video Monitor. The options are Rent, Purchase, Return a vended item, Pay fees, Change the last four digits of his account number or buy a membership.

If at this time a selection is chosen requiring money to be paid, the MPB 1000 then activates the Dollar Bill Validator and Coin Acceptor. It waits to see if the proper amount of money to cover the present transactions and all past due charges has been received.

In a Rental or Return transaction, if the correct amount of money has been deposited and the account is up to date, the MPB 1000 tells the motor controller board to take the retriever assembly to the appropriate X & Y location. But first, the MPB 1000 must do some housekeeping: error sensing.

To be error-free, the retriever must be clear and at the "Home" position. If everything is OK, the retriever will either go to a cassette location on a rental or go to the tape access door on a cassette return.

It does this under control of the MPB 1000 which calculates the X & Y location of every rental slot. The MPB 1000 counts the steps traveled by using an optical disc, mounted on the shaft of both the X & Y drive motors. The optical sensor pulses when it sees spaces in the disc. The distance represented by one pulse equals .0014 inches. When the count matches the MPB 1000 address, the retriever has arrived at the proper cassette slot location.

At this point, the MPB 1000 does the error checking, again, to make sure the retriever is clear. If all is clear, the Z motor drives the grabber unit IN until until the "Grabber In" switch is made. At that point, the grabber solenoid is energized. The grabber grabs a cassette tape and the Z motor reverses direction and pulls the cassette tape off the shelf.

The Z motor pulls the grabber out until the "Grabber Out" switch is made. At this point, the MPB 1000 again checks the sensor switches: Tape Top YES, Tape Front YES, Tape Back YES, Tape Wrong NO, Grabber Out YES. If these switches are not correct, the Vendor will try to clear the error, return the cassette tape to the slot or shut down the Vendor with an error condition (Error 99).

If everything is OK, the retriever assembly will take the cassette tape to the tape access door. When the retriever arrives at the door, the Z motor and grabber go into the label reading routine, whereby the Z motor positions the cassette tape against the reader for validation.

The label reader now reads the label and assigns the control number to that customer's account. This is done so that upon return of the cassette, the Vendor can verify the correct cassette has been returned. That is why the SAME account number used for rental must be used upon return.

If the label is read correctly, the access door latch solenoid will be activated and the green light turned on. (If the green light does NOT come on, the magnet attached to the left side of the retriever cover is not aligned in front of the REED switch and the Access Door Y-Count must be adjusted.) Then cassette will be ready for removal by the customer. The customer has 20 seconds to remove the cassette, or the Vendor will put the cassette back and credit his account.

Upon removal of a cassette, the printer makes a listing of the transaction just completed, so that the customer can have a copy for his records and the MPB updates the customer account in the Bubble Memory.

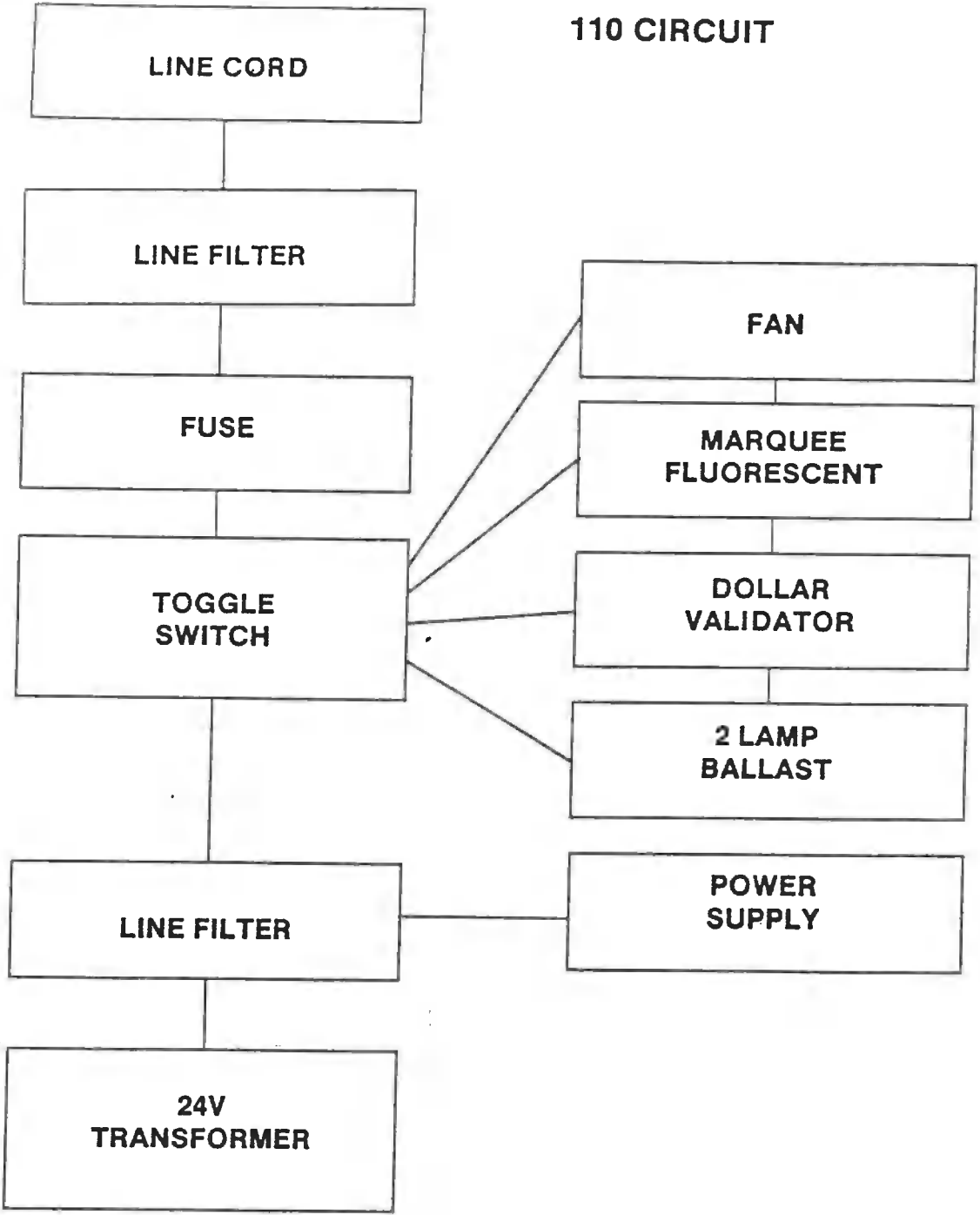
To Return a cassette, the process is very similar to that of a rental. The customer identifies himself by entering the same account number or credit card used when renting the tape. He then enters the return code using the keypad and the transport head assembly will move to the tape access door. The customer inserts the cassette properly, and the door latches. The label reader validates that the correct cassette has been returned. The retriever returns the tape to the proper location, and updates the customer's account. The customer also receives a printout of the transactions for his records.

That is all the Video Vendor does and once you understand the sequence, trouble-shooting a problem becomes very easy.

To trouble-shoot, run the machine observing the operation. When the machine does anything OUT OF SEQUENCE, turn the AC power switch OFF. Next, OPEN the coin door and turn the AC power back ON. This action freezes the Video Vendor at the moment of failure. When power comes on, you will now be in the Service Mode, and you can enter feature 19, which is Diagnostics.

The Diagnostic menu is dynamic, and shows you the current condition of all the sensor switches. You must now interpret which switch is incorrect and investigate further until the problem is discovered and corrected.

110 CIRCUIT



HELPFUL INFORMATION

- WEIGHT OF MACHINE 770 POUNDS (UNCRATED)
870 POUNDS (CRATED)
- ELECTRICAL SPECIFICATIONS 120 VOLTS AC. SINGLE PHASE
60 CYCLES. USE A DEDICATED
15 AMP LINE IF AVAILABLE.
- PREPARATION A) OBTAIN MOVIE TAPES, AFFIX CODE
LABELS, TITLE LABELS AND ID LABELS.
("REWIND", "ADJUST TRACKING",
"OPERATOR'S NAME-ADDRESS-PHONE").

B) PRINT SIGNS, POSTCARDS, MEMBERSHIP
CARDS, RETURN RECEIPTS, ETC.

C) WHEN THE MACHINE ARRIVES . . . UNCRATE,
PUT INTO LOCATION, POWER UP & TEST.

D) PUT TAPES INTO SLOTS . . . TEST MACHINE
AGAIN.

E) SET ALL MACHINE FUNCTIONS... "CREDIT
CARD", "RENTAL FEES", "EXTRA DAY
FEES", "EARLY TIMER", ETC.

F) WE SUGGEST THAT IF YOU USE A MOVIE
LIST, PRINT THE SLOT NUMBER LOCATIONS
ALONGSIDE EACH MOVIE TITLE ON THE LIST.
- UNCRATING INFORMATION SPECIFIC INSTRUCTIONS ARE SENT
WITH THE MACHINE.
- MANUALS ARE SENT IN THE CASH BOX AND MAY
ALSO BE SENT UNDER SEPARATE COVER
ON REQUEST. YOU WILL ALSO FIND KEYS
AND SPARE PARTS IN THE CASH BOX.
- CASH BOX KEY IS ATTACHED TO OUTSIDE OF MACHINE
NEAR KEYBOARD.

-PUTTING MOVIES AWAY . . . WHEN PUTTING MOVIES AWAY IN SLOTS IT WILL BE HELPFUL IF YOU WRITE THE SLOT# ON THE CASSETTE ON ONE OF THE LABELS. ALSO WRITE THE SLOT # BELOW THE TITLE ON THE SPINE. THESE #S WILL BE HELPFUL WHEN RETURNING MOVIES LEFT AT THE COUNTER AND TO VISUALLY ALERT YOU WHEN MOVIES ARE IN WRONG SLOTS. ALSO BE SURE TO LINE UP THE EDGE OF CASSETTE WITH EDGE OF SHELF (DO NOT PUSH CASSETTE ALL THE WAY TO THE BACK WALL). TITLES MUST ALWAYS BE READABLE FROM TOP TO BOTTOM. SEE ILLUSTRATION ON INSTRUCTION SIGN ON FRONT OF MACHINE ABOVE ACCESS DOOR.

-GETTING THE CASH . . . WE RECOMMEND THAT YOU DO NOT PUT A PLASTIC OR PAPER BAG IN THE CASH BOX TO HOLD THE MONEY BECAUSE THEY DO NOT LAY SMOOTHLY AND WILL ALLOW THE CASH TO JAM THE INPUT SLOT. FOR FAST COLLECTION, SLIDE OUT THE DRAWER AND PUT A PLASTIC BAG OVER THE DRAWER AND TURN UPSIDE DOWN.

-ERROR MESSAGE GUIDE. . . BLANK SCREEN (OR GARBAGE ON SCREEN) MEANS TO CHECK THE MAIN PROCESSOR BOARD FOR MALFUNCTION OF CENTRAL PROCESSOR (LOCATION U-2), VIDEO CONTROLLER CHIP (U-31), VIDEO RAM (U-28).
#1 THRU 7 . . . BUBBLE MALFUNCTION
#8 THRU 12 . . . ASSEMBLY LINE SOFTWARE
#13 . . . SCRATCH RAM (U-13)
#14 . . . RAM ONE (U-17)
#15 . . . GENERAL PROBLEM (U-29)
#16 . . . PROM ZERO (U-3)
#17 . . . PROM ONE (U-9)
#18 . . . PROM TWO (U-13)
#98 . . . COMMUNICATIONS ERROR
#99 . . . TRANSPORT MALFUNCTION (ANY)

-BLOWN FUSE . . . IF THE MACHINE WILL NOT RESTART, IT IS PROBABLY BECAUSE THE FUSE HAS BLOWN. THE FUSE IS A "SLOW BLOW" TYPE (GLASS TUBE SHAPE) LOCATED IN THE ELECTRONICS DRAWER ON THE LEFT SIDE NEAR THE REAR. IT IS THE SAME YOU INSTALLED WHEN SETTING UP THE MACHINE. WITH THE POWER OFF, TAKE OUT THE FUSE AND REPLACE IT. THEN RESTART THE MACHINE. THE RESET BUTTON IN THE ELECTRONIC DRAWER CAN BE USED THE SAME AS THE ON/OFF SWITCH LOCATED AT THE TOP OF THE MACHINE.

-BODY SENSOR . . . THIS IS LOCATED INSIDE ON THE FRONT OF THE MACHINE BELOW THE CREDIT CARD READER. NOTICE TWO RED PLASTIC DISCS, ON THE FRONT OF THE MACHINE. THE SENSOR IS INSIDE THE MACHINE BEHIND THESE DISCS. THE PURPOSE OF THE SENSOR IS TO DETECT WHEN A CUSTOMER IS PRESENT AND TO ALLOW OPERATION OF THE MACHINE. IF THE CUSTOMER MOVES OUT OF RANGE OF THE SENSOR (HE LEAVES THE MACHINE), THEN THE MACHINE CLEARS THE SCREEN AND RESETS TO ALLOW USE BY THE NEXT CUSTOMER. THIS PREVENTS THE NEXT CUSTOMER FROM USING THE PREVIOUS CUSTOMER'S ACCOUNT. IT IS IMPORTANT THAT THE SENSOR'S RANGE BE BETWEEN 24" AND 30". IF NOT YOU WILL HAVE TO ADJUST IT. SEE BULLETIN #30.

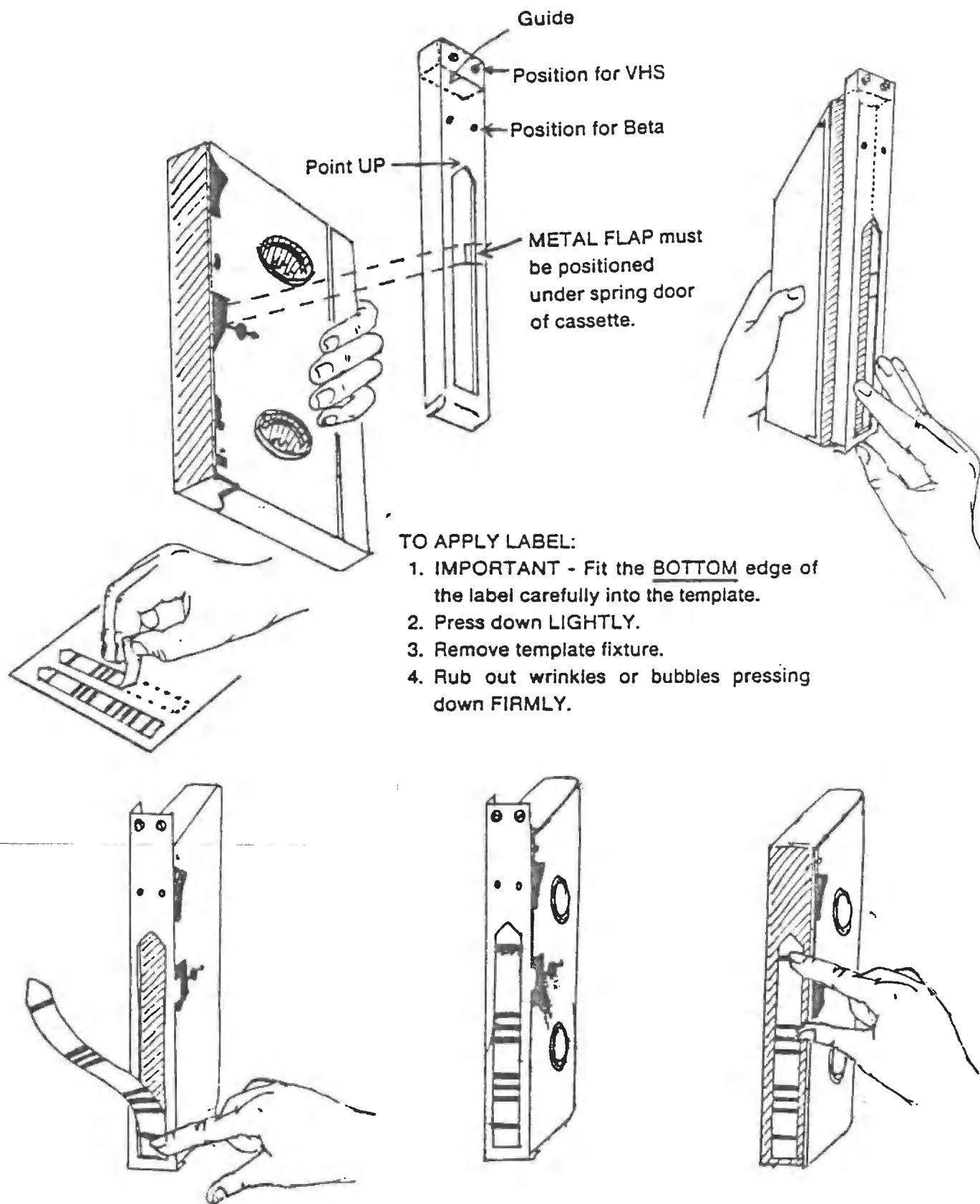
-START-UP CODE LABELS . . . ARE SENT WITH MANUALS OR ON REQUEST.

-CODE LABEL FIXTURE . . . THE FIXTURE IS A METAL PIECE USED TO HELP YOU CORRECTLY POSITION THE CODE LABELS. IT IS IMPORTANT TO USE THE FIXTURE CORRECTLY. THE FIXTURE HAS A BENT FLAP IN THE CENTER WHICH IS TO FIT UNDER THE FLAP (DOOR) OF THE CASSETTE. THEN THE FIXTURE SHOULD FIT SNUGLY AND FLAT ON THE SURFACE OF THE CASSETTE FLAP. THE CUT OUT IN THE FIXTURE HAS A STRAIGHT EDGE AT ONE END AND A POINTY EDGE AT THE OTHER END. THIS MATCHES THE SHAPE OF THE CODE LABELS. POSITION THE CODE LABEL INTO THE CUT OUT, USING THE FLAT EDGE NOT THE POINTY EDGE AS THE GUIDE FOR INSERTING THE LABEL. PRESS DOWN LIGHTLY. REMOVE THE FIXTURE AND THEN PRESS DOWN THE CODE LABEL FIRMLY RUBBING OUT ANY BUBBLES OR WRINKLES. (SEE PAGE 50).

-RESETTING. . . . ANYTIME THE MACHINE MALFUNCTIONS AND SHUTS OFF IT CAN EASILY BE RESET BY MERELY TURNING THE MACHINE OFF AND ON AGAIN USING THE SWITCH LOCATED ON THE TOP RIGHT SIDE OF THE MACHINE ABOVE THE MARQUEE. OF COURSE, IF THE MACHINE IS JAMMED, THE JAM MUST FIRST BE CLEARED. THE PERSONNEL AT THE LOCATION OF THE MACHINE CAN BE SHOWN HOW TO RESET IT.

ON VERSION 4 SOFTWARE YOU CAN RESET AN ERROR 99 BY OPENING THE COIN DOOR. YOU DO NOT HAVE TO TURN THE POWER OFF AND ON.

DIRECTIONS FOR APPLYING TAPE CODE LABELS



TO APPLY LABEL:

1. **IMPORTANT** - Fit the BOTTOM edge of the label carefully into the template.
2. Press down **LIGHTLY**.
3. Remove template fixture.
4. Rub out wrinkles or bubbles pressing down **FIRMLY**.

THE RETRIEVER.. THE RETRIEVER IS THE STAINLESS STEEL, BOX SHAPED CONTAINER THAT CARRIES THE MOVIE CASSETTE TO AND FROM THE SHELF SLOTS AND THE ACCESS DOOR, ETC. TO REMOVE THE COVER OF THE RETRIEVER, REMOVE THE FOUR SCREWS LOCATED ON THE SIDES AT THE BOTTOM (TWO SCREWS ON EACH SIDE). TURN THE POWER OFF AND OPEN THE SERVICE COIN DOOR. CAREFULLY LIFT OFF THE COVER AND NOTE HOW THE WIRES ARE WRAPPED INSIDE. UNPLUG (BY PULLING APART) THE WHITE PLUG LOCATED ON THE WIRES AND YOU CAN NOW COMPLETELY SEPARATE THE RETRIEVER COVER FROM THE TRANSPORT MECHANISM. BY DOING THIS YOU WILL HAVE EXPOSED THE GRABBER AND ITS RAM SHAFT, THE SOLENOID, THE FRONT AND REAR STOPPER SWITCHES. TURN THE POWER ON WITH THE COIN DOOR OPEN AND ENTER FEATURE #19: DIAGNOSTICS. IF YOU MOVE THE GRABBER FORWARD AND BACK (IN AND OUT) BY USING THE BUTTONS IN THE ELECTRONICS DRAWER OR THE KEYBOARD WHILE IN THE DIAGNOSTICS MODE (#19 ON THE MAIN SERVICE MENU). YOU WILL NOTICE THAT THE GRABBER STOPS WHENEVER ITS APPENDAGE CONTACTS EITHER STOPPER BLACK MICRO SWITCHES. A PROBLEM CAN DEVELOP, FOR EXAMPLE, IF THE GRABBER MOVES FORWARD AND CONTACTS THE CASSETTE BEFORE CONTACTING THE FORWARD BLACK MICRO-STOP-SWITCH. THIS WOULD CAUSE THE GRABBER FINGERS TO FAIL TO CLOSE AND, THEREFORE, THE CASSETTE COULD NOT BE PULLED OUT TO BE VENDED. TO CORRECT THIS PROBLEM, YOU MUST SLIDE THE FORWARD STOP SWITCH (GRABBER IN) A LITTLE TOWARD THE FRONT BY FIRST LOOSENING THE TWO SCREWS HOLDING THE SWITCH BRACKET. ALSO, IF THE GRABBER PULLS THE CASSETTE BACK, BUT THEN PUSHES IT FORWARD AGAIN (INSTEAD OF BRINGING IT TO THE ACCESS DOOR TO VEND), IT'S PROBABLY BECAUSE THE REAR STOP SWITCH (GRABBER OUT) WAS CONTACTED BEFORE THE REAR ELECTRIC EYE BEAM (TAPE BACK), COULD SEE THE CASSETTE. IN OTHER WORDS, THE CASSETTE WAS NOT BROUGHT BACK FAR ENOUGH, AND THE TRANSPORT WON'T START BECAUSE, AS A SAFETY FEATURE, IT THINKS THAT THE CASSETTE IS PARTIALLY STICKING OUT FORWARD AND DOESN'T WANT TO CREATE A JAMMED CONDITION. TO CORRECT THIS CONDITION, JUST SLIDE THE REAR STOP SWITCH (GRABBER OUT) A LITTLE FURTHER TO THE REAR TOWARD THE TAPES. SEE BULLETIN #21.

VIDEO VENDOR ACCESSORIES LIST DESCRIPTION

1. **DATA RECORDER:** used for backing up the data stored in the Vendor, copying data or loading data into the Vendor.
Part #X-101
2. **SAFE:** This item is a small safe which would be left at the location service counter at a Vendor location to store tapes which were unable to be returned by customers to the Vendor.
Part #X-103
3. **INFORMATION HOLDERS:** These are the holders attached to the outside of the Vendor to supply information sheets to customers.
"A" Rack (8x6x2) Part #X-104
"B" Rack (4x4x2) Part #X-105
New Release Rack Part #X-131-C
4. **SUPPLY KITS:** These are the supplies used for the on-going business of operating the Video Vendor. One kit is free with each machine. Individual supplies are as follows:
Code Labels # X-106
Single Ply Receipt Tape # X-107
Double Ply Receipt Tape # X-108
Printer Ribbon # X-110
Application Cards # X-111
1 Set of Inst. Signs # X-113
Business Reply Cards # X-114
Label Fixture Guide # X-106-A
Posters # X-124
Post Cards # X-125
Circulars # X-126
Membership Cards # X-129
Large Receipt Tape Bracket Kit # X-200
Large Roll Receipt Tape # 12A564-1
5. **RELAY INTERFACE CARD:** For V2.010 PROMS and above. This item is used to activate up to three external devices such as the audio player-speaker and the automatic phone dialer.
Output #1 activates the body sensor.
Output #2 activates upon the start of the transport when leaving "Home".
Output #3 activates on a Code Error 99.
Part #X-121
6. **AUDIO PLAYER-SPEAKER:** This item is used to provide voice messages to the customer while he is using the Vendor. The messages can be changed by the Vendor operator. The machine can turn on one message when the sensor senses someone approaching, and another message when the transaction has been paid for and while the robotic transport is moving.
Part #X-115
7. **TROUBLE SHOOTER AUTOMATIC PHONE DIALER:** A device that is affixed to the Vendor and automatically dials a number to tell owner that machine is down or in trouble.
Part #X-117
8. **MOVING ELECTRONIC MESSAGE SIGN:** can be programmed by the Vendor operator and can be placed on the machine or at a remote location-
Part #X-116

9. **BURGLAR ALARM:** Can easily help protect any of the machine's doors. It uses a 9V battery and has a loud siren.

Part #X-118

10. **TV AND REPLAY VCR:** Can be used to show video preview trailers or demonstration on How to Use Machine. Fits in or on machine or at a remote location. Has 10" screen.

Part #X-119

11. **PIN NUMBER COMPUTER:** Required if you wish to use the PIN number feature of the machine. The computer calculates automatically the correct PIN number for each credit card number. It comes pre-programmed and sealed.

Part #X-122

12. **TOOL KIT:** Contains specially chosen tools for servicing Video Vendor machines.

Part #X-135

13. **PLASTIC ENCODED MEMBERSHIP CARDS:** Printed in two colors (red & black) on gold material, hot stamped with member rotation number and encoded with member rotation number on magnetic stripe on back. Generic instructions are also printed on back. Operator's name, address, phone and machine location are overprinted on front in operator's choice of colors.

Part #X-129

14. **SLIDE LOCK:** Ratchet lock like those used for glass door jewelers boxes. Designed to help prevent break-in of Video Vendor large Lexan Doors.

Part #X-130

15. **METAL DISPLAY RACK:** holds over 320 boxes on 4 wire hoops which extend 9 1/2 inches from the Vendor.

Part #X-131

16. **PLASTIC CLIPS:** Attach to boxes and clip onto display rack.

Part #X-131-A

17. **PLASTIC SLEEVE ENVELOPES:** For metal display rack.

Part #X-131-B

18. **MARQUEE WITH FLASHING LIGHTS:** 3' X 5' to fit on top of machine.

Part # X-136

19. SPARE PARTS KIT: This is a kit of selected maintenance replacement parts. One kit can service up to 10 machines.

Part #X-102

THE KIT CONTAINS THE FOLLOWING PARTS WHICH CAN ALSO BE ORDERED SEPARATELY. Refer to Parts Manual (Section B) for reference location.

Part #	Pg.-Item	Description
B-2991	01-10	CREDIT CARD READER (1)
B-3043	01-11	MONITOR (1)
A-2949	01-9	KEYPAD (1)
8A-790	02-3	INDICATOR LIGHT (2)
8A-160	03-5	SWITCH (LIMIT) (2)
A-800	03-6	MAGNETIC REED SWITCH (1)
A-3016	03-3	SOLENOID LOCK ASSEMBLY (1)
B-3061	05-3	BODY DETECTOR (1)
A-3057	07-2	INFR-RED TAPE TOP BOARD (2)
A-2927	13-5	POWER SUPPLY (1)
A-2955	05-5	PRINTER ASSEMBLY (1)
10C-12	10-10	MOTOR (1)
1B-2543	10-7	ENCODER DISC (1)
A-2990	07-7	MAGNET ASSEMBLY (1)
8A-785	08-8	SWITCH (GRABBER) (2)
7A-165	08-9	GRABBER CLAMP PAD (2)
4A-998	08-11	PLASTIC SWITCH INTERRUPTER (3)
7A-166	08-15	RUBBER DRIVE BELT (3)
B-3054	08-19	EMITTER BOARD (1)
B-3055	08-20	PHOTO DETECTOR BOARD (1)
1A-2592	08-4	SLIDE GLIDE PLATE (1)
A-2964	09-5	ENCODER BOARD (1 of 4)
A-2993	09-3	LABEL READER DECODER BOARD (1)
17A-258	12-17	7/8 CAM ROLLER (4)
17A-257	12-8	11/16 CAM ROLLER (3)
B-3060	13-2	MOTOR CONTROLLER BOARD (1)
A-3080	13-3	HEAT SINK ASSEMBLY (1)
B-3063	13-6	MICRO PROCESSOR BOARD (1)
B-3070	13-7	BUBBLE MEMORY BOARD (1)
8A-797-2	13-9	3 AMP SLO-BLO FUSE (10)
8A-797-1	13-11	5 AMP FUSE MAIN POWER (3)

SMALL ITEMS KIT X-102-1

<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
3	4A-100-8	CLAMPS
3	4A-100-12	CLAMPS
3	4A-100-16	CLAMPS
3	1A-2539-1	RING TONGUE TERMINAL
1	A-2964	ENCODER CARD
1	A-3057	TAPE TOP BOARD
1	1A-2534	ROLLER BRACKET
1	A-2591	TAP TOP MOUNTING BKT
2	2A-675	SHOULDER SCREWS
4	2A-676	SLIDE GLIDE SPACERS
2	3A-100	WASHER
2	3A-101	WASHER
2	3A-103	WASHER
2	3A-109	WASHER
2	3A-113	WASHER
2	3A-133-8	WASHER
2	3A-133-25	WASHER
2	3A-133-37	WASHER
2	3A-180	WASHER
2	3A-181	WASHER
2	3A-182	WASHER
4	4A-1031	SPACER
2	4A-1034	WEAR PLATE
5	8A-797-2	3 AMP FUSE
3	8A-797-1	5 AMP FUSE
4	31A-500	SCREW 6x32x1/4
4	31A-502	SCREW 6x32x3/8
4	31A-505	SCREW 6x32x1/2
4	31A-517	SCREW 8x32x3/8
4	31A-857	SCREW 8x1/2
4	31A-860	SCREW 8x3/4
4	31A-870	SCREW 8x3/4
4	31B-285	SCREW 6x32x1/2
4	32A-121	NUT 6x32
2	32A-123	NUT 6x32
4	32A-132	NUT 8x32
4	32A-151	NUT 10x32
2	32A-161	NUT 1/4x20
1	A-2990	MAGNET
4	4A-998	PLASTIC SWITCH INTERP.
4	17A-251	SPRINGGRIP FASTENER
1	8A-800	REED SWITCH
2	8A-794	DIODES
1	8A-790	INCANDESCENT INDICATOR
2	8A-785	LIMIT SWITCH
2	8A-160	LIMIT SWITCH
3	7A-166	BELT
2	7A-164	GRABBER PADS
2	4A-1037	POINTERS

GLOSSARY of TERMS

BUBBLE - THIS IS A SPECIAL MEMORY DEVICE WHICH THE COMPUTER CAN WRITE TO, READ FROM AND STORE PERMANENT DATA TO WITHOUT FEAR OF LOSING IT DURING A POWER FAILURE.

COIN DOOR - THE SERVICE DOOR ON WHICH THE COIN MECHANISM IS ATTACHED.

ENCODER - REFERS TO A DEVICE WHICH COUNTS AND STORES PULSES WHICH INDICATE AN AMOUNT OF MOVEMENT BY THE X OR Y MOTOR.

HOME - THE INITIAL STARTING X OR Y LOCATION FROM WHICH THE RETRIEVER LEAVES TO GET TO ANY LOCATION IN THE MACHINE.

INTERLOCK - A SAFETY SWITCH TO REMOVE POWER UNDER NON-OPERATING CONDITIONS.

LABEL READER - THE PRINTED CIRCUIT BOARD USED TO READ THE CODED LABELS ON EACH TAPE.

LEXAN DOOR - THE TWO LARGE, CLEAR DOORS IN FRONT OF THE CASSETTE COMPARTMENT.

MCB - MOTOR CONTROL BOARD.

MPB - MAIN PROCESSOR BOARD WHICH CONTAINS ALL THE MEMORY CHIPS INPUT, OUTPUT CONTROL CHIPS AND VENDOR SOFTWARE PROGRAM CHIPS.

PCB - PRINTED CIRCUIT BOARD REFERS TO ALL OF THE FIBERGLASS EPOXY RESIN BOARDS WHICH HAVE MEMORY OR CONTROL CHIPS.

PROM - PROGRAMMABLE READ ONLY MEMORY CHIP USED PRIMARILY TO STORE THE VIDEO VENDOR OPERATING SOFTWARE PROGRAM.

RETRIEVER - THE ROBOTIC TAPE COMPARTMENT USED TO RETRIEVE AND RETURN A CASSETTE.

SERVICE DOOR - EITHER THE COIN DOOR OR THE BOTTOM (WOODEN) DOOR USED TO GAIN ENTRANCE TO ELECTRONIC PORTIONS OF THE VENDOR.

TAPE ACCESS DOOR - THE SMALL LEXAN DOOR RAISED BY THE CUSTOMER TO REMOVE A CASSETTE FROM THE VENDOR.

TRANSPORT - THE ENTIRE MECHANISM ON WHICH THE RETRIEVER MOVES.

"X" AXIS - REFERS TO THE LEFT AND RIGHT DIRECTION (HORIZONTAL).

X INTERRUPTER - THE BLACK PLASTIC WHICH INTERRUPTS A PHOTO ELECTRIC BEAM TO TELL THE VENDOR TRANSPORT IS HOME. THE PHOTO ELECTRIC BEAM IS ON AN ENCODER BOARD.

"Y" AXIS - REFERS TO THE UP AND DOWN DIRECTION (VERTICAL).

Y INTERRUPTER - SAME AS X INTERRUPTER EXCEPT FOR THE Y MOTOR.

"Z" AXIS - REFERS TO THE IN AND OUT DIRECTION WHICH THE GRABBER TRAVELS.